LEATH & ROSS,

WHOLESALE AND EXPORT

HOMŒOPATHIC CHEMISTS,

9 VERE STREET, W.,

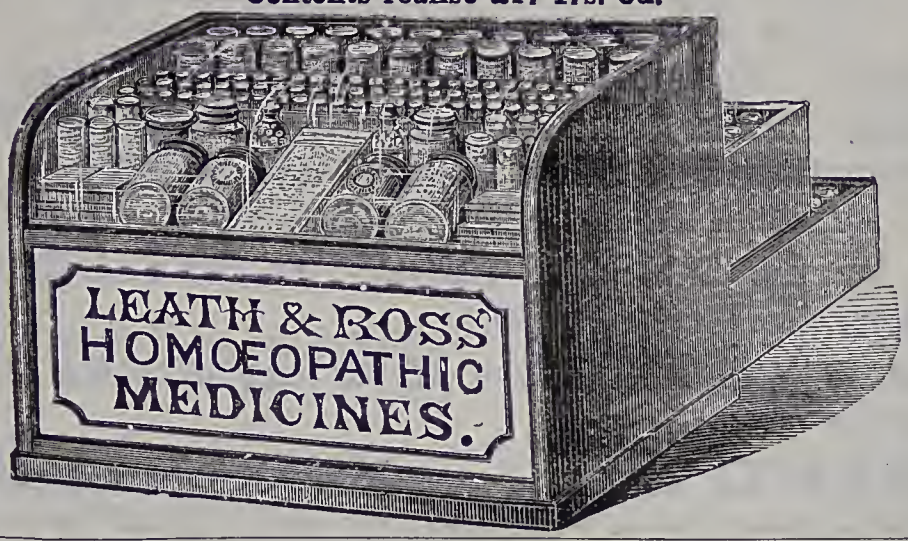
AND AT 5 ST. PAUL'S CHURCHYARD, E.C., LONDON.

Wholesale and Export Department—9 VERE STREET, W.

OUR £10 10s. AGENTS' SHOW CASE.

Contents realise £17 17s. 8d.

DIMENSIONS.—Length, 18 in.; Breadth, 13 in.; Height, 13 in.



DESCRIPTION.—A Handsome Bent Glass Case, with three drawers, the contents of top drawer visible, the Pilules and Tinctures arranged in the other two in alphabetical order.

WHOLESALE PRICE LIST OF MEDICINES PUT UP READY FOR SALE.

PILULES—Sixpenny Bottles	—	2/9 per dozen.	TINCTURES—Sixpenny Bottles	—	2/9 per dozen.
Ninepenny „	—	4/- „			
Shilling „	—	5/- „	Shilling „	—	5/- „

Subject to Cash Discount.

PROPRIETARY ARTICLES.

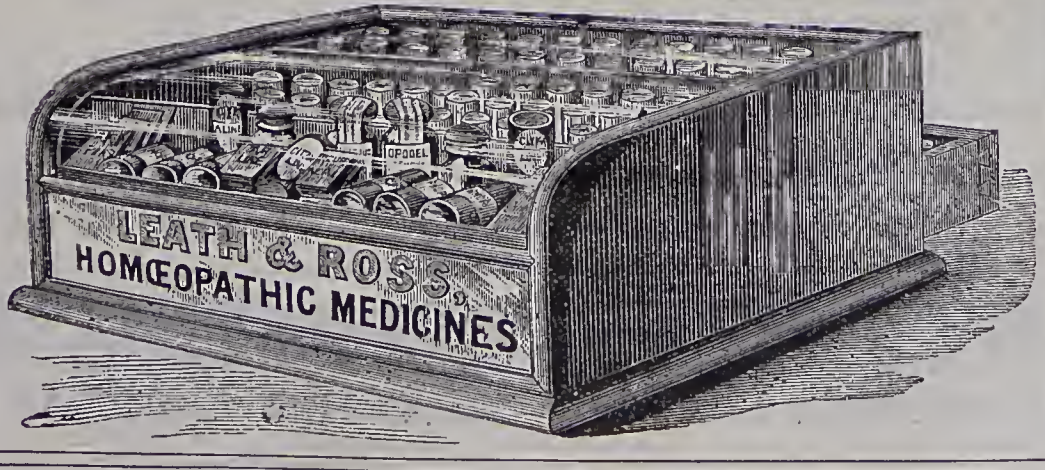
Neuraline	—	1/1½	Berberine	—	1/1½	Linimentum Auricularis	...	1/1½
Glykaline	...	1/1½	Chilblain Liniment	...	1/1½	Bryonia Liniment	...	1/1½
Phospho-muriate of Quinine		1/1½	Odontagic Essence	...	1/1½	Corn Eradicator	—	1/1½

All the above Proprietary Articles, 9/6 per dozen. Subject to Cash discount.

OUR £6 6s. AGENTS' SHOW CASE.

Contents realise £10 18s. 8d.

DIMENSIONS.—Length, 20 in.; Breadth, 15¼; Height, 9¼ in.



DESCRIPTION.—A Handsome Bent Glass Case, with two drawers, the contents of top drawer visible, the Pilules and Tinctures arranged in alphabetical order.

5—FACTS—5

"Coffee which makes the politician wise,
And see through all things with his half-shut eyes."—*Pope.*

1.—THAT THOS. SYMINGTON & CO.'S "EDINBURGH" COFFEE ESSENCES have the Largest Family Sale throughout the World. Pure and Strong.

"The most delicious and the rarest beverage in the world."—*Disraeli.*

2.—THAT their DANDELION COFFEE ESSENCE affords great Relief to Sufferers from Biliousness or Indigestion, and is highly praised.

"One sip of this will bathe the drooping spirits in delight
Beyond the bliss of Dreams. Be wise, and taste!"—*Milton.*

3.—THAT their "PYRAMID" MALT EXTRACT contains more active principle (*Diastase*) than any other kind, and is therefore invaluable for strengthening delicate Children and Invalids.

"Cull'd from sheaves of August gold."—*Anon.*

4.—THAT "for the Table, the Nursery, or the Sick Room, these preparations are indispensable."

5.—THAT those who sell or use all or any of them will favourably remember

SYMINGTON, EDINBURGH.

13—GOLD AND SILVER MEDALS—13

Have been Awarded the following Specialities of

THOS. SYMINGTON & CO., EDINBURGH,

For Purity and Excellence of Quality:—

Essence of Pure Coffee	In 6d., 1s., and 2s. Bottles.
Do. Coffee and Chicory...	In do. do.
Do. Dandelion Coffee	In 1s. and 2s. Bottles.
"Edinburgh" Coffee and Milk	In 1-lb. Tins.
"Edinburgh" Chocolate and Milk	In do.
"Edinburgh" Cocoa and Milk	In do.
Prepared Taraxacum (Dandelion)	In ¼ and ½ lb. Tins.
Do. do. with Pure Coffee	In do. do.
"Pyramid" Malt Extract	In 8-oz. (fluid) Bottles.
Do. do. with Cod Liver Oil ...	In do. do.

THOS. SYMINGTON & CO., 61 LEADENHALL ST., E.C.

HEAD OFFICE AND WORKS—BEAVERBANK, EDINBURGH.

IMPORTANT

OWING to the continued growth of our business and to the consequent necessity of being located in the centre of the DRUG AND CHEMICAL MARKETS, we beg to announce that we have taken CITY OFFICES at

21 Mincing Lane, E.C.

to which address all communications should now be forwarded.

Fletcher, Fletcher & Stevenson

North London Chemical Works, HOLLOWAY, N.,

AND

21 MINCING LANE, E.C.

Telegrams: "IODINE LONDON."

PRIVATE TELEPHONE BETWEEN WORKS AND CITY OFFICE.

Telephone No. 2477.

Facsimile.

Any *further* communication should be addressed to

THE ASSISTANT SECRETARY,
(MARINE DEPARTMENT),
BOARD OF TRADE,
LONDON, S.W.

And the following letter and number should be quoted:—

M 23793.

Telegraphic Address.
BOARD TRADE, MARINE,
LONDON.

BOARD OF TRADE,

(Marine Department),

LONDON, S.W.

16th January, 1890.

EMIGRATION.

Gentlemen,

With reference to your letter of the 18th ultimo, submitting a sample of a substitute for Oiled Silk prepared by you, and enquiring whether it may be used on board passenger Ships, I am directed by the Board of Trade to inform you that they have given directions for their Surveyors to pass it in place of oiled silk as one of the medical stores to be carried on board Ships clearing under the Passengers Acts.

I am,

Gentlemen,

Your obedient Servant,

GEORGE J. SWANSTON.

Messrs. Thomas Christy & Co.,

25 Lime Street,

E.C.

NOTICE OF INTRODUCTION

"VINOLIA"

SHAVING SOAP.

A DE-ALKALISED, DE-HYDRATED, SUPERFATTED, BAY-RUM SOAP.

The evils of ordinary soaps are doubly intensified when used for shaving, both as regards the action of the alkalies upon the face, and also of the essential oils employed for scenting. "VINOLIA" SOAP yields a staying substantial lather, free from alkalies, and is charged with bay-rum, the desirable qualities of which have rendered it of such wide-spread usefulness.

While a harmless thick lather makes shaving a comfort and pleasure, an evanescent alkaline one causes smarting, and renders the face liable to become rough and blotchy. We have thus long deferred supplying a Superfatted Shaving Soap, because we would not send one out unless we could honestly say it was SUPREME. This is the only proper Shaving Soap to use, and will not cause disappointment.

As the Medical Profession are already familiar with "VINOLIA" SOAP, we have not deemed it necessary to prepare samples of "VINOLIA" SHAVING SOAP.

Prices—2s. and 3s. 6d. per Stick.

BLONDEAU ET CIE, LONDON, PARIS, AND NEW YORK.

English Depot—RYLAND ROAD, LONDON, N.W.

STEVENSON & HOWELL'S

NEW SELECTED

Palermo Oil of Lemon

OF SUPERB QUALITY.

WE have pleasure in announcing that we are ready to deliver the first shipments of NEW CROP Selected OIL LEMON, just received direct from the Grower, having passed through no intermediate hands. Our policy of shipping and supplying only the finest and purest Sicilian Essences from one grower has succeeded far beyond our most sanguine expectations, and the demand for our Pure Selected Sicilian Essences continues to increase month by month, as their practical working value becomes more and more appreciated.

STEVENSON & HOWELL

STANDARD WORKS,

95a SOUTHWARK STREET, LONDON, S.E.;

AND 123 HOPE STREET, GLASGOW.

STEVENSON AND HOWELL

FELLOWS OF THE CHEMICAL SOCIETY &c.&c.

MANUFACTURING CHEMISTS
DISTILLERS
AND IMPORTERS OF

ESSENTIAL OILS
OF
GUARANTEED PURITY
PURE CONCENTRATED
SOLUBLE ESSENCES
FRUIT-ESSENCES

SELECTED
OIL OF LEMON
GUARANTEED
ABSOLUTELY PURE.

SOLUBLE ESSENCE
OF
LEMON.
SWEET ORANGE.
BELFAST GINGER ALE.
TANGERINE
FRUIT
CHAMPAGNES.
&c., &c.

AMERICAN
FOAM SYRUP.
FOR GIVING A CLOSE
CREAMY HEAD TO
ALL BEVERAGES

ALL MATERIALS
REQUIRED BY
CONFECTIONERS
BISCUIT MAKERS
WHOLESALE
TOBACCONISTS.
SOAP MAKERS,
PERFUMERS,
&c &c

EXTRA QUALITY
SOLUBLE ESSENCE
OF
JAMAICA
GINGER
A PERFECT
GINGER ESSENCE
See The Lancet, July 3rd 1886

HIGHLY
CONCENTRATED
FRUIT
ESSENCES

HARMLESS
VEGETABLE
COLOURS
FREE FROM ANILINES

SOLUBLE
CONCENTRATED
COLOURINGS
FOR ALL LIQUIDS

ALL MATERIALS
REQUIRED BY
MINERAL WATER
MAKERS
CORDIAL MAKERS
RECTIFIERS & DISTILLERS
BREWERS, &c

PURE COLOURINGS
OF EVERY DESCRIPTION
ANALYTICAL AND CONSULTING CHEMISTS
STANDARD WORKS,
95A SOUTHWARK ST., LONDON, S.E.
AND 128, HOPE ST., GLASGOW.

PROGRESS & POVERTY

As there seems to be an impression abroad that we have agents in various parts, we would inform our friends that we have no agents whatever, but sedulously adhere to the principle of giving to the trade whatever would otherwise pass into the hands of agents. We go a step further than this, and may say that we have done for the trade what never has been done by anyone before. The small retailer knows very well that he has been, and is now, to a certain extent at the mercy of the cutters. It may be here incidentally observed that hundreds of small retailers have communicated with us during the past year, and by the co-operation which it has been our privilege and pleasure to enjoy with them, they have materially increased their business. It would be a great surprise to many if they could see some of the letters of thanks which we have received from Chemists in return. This is no mere story, but absolute fact. So great has been the assistance which we have rendered in some cases, that a few weeks ago one of the large houses in Great Britain complained of aid which we had rendered small houses, and asked for an explanation of this as they had always kept our Preparations. We wrote back that if they would refer to the back numbers of our advertisements in The Chemist and Druggist and other journals they would see that we had desired all Chemists who had stocked our goods to notify us that they had done so, stating that it would be to their advantage. It may be noted here, *en passant*, that no houses are so big that they can afford to pass by advertisements without reading them.

But to pursue the subject-matter in hand. Hitherto hardly any houses have been willing to supply the small retail Chemists on the same terms that they would the largest houses. Hence it follows that the small houses have been to a certain extent at the mercy of the larger ones. When, therefore, the cutters thought fit to operate it was to the damage of the small Chemists. The fact may be as well faced by the latter as not, that the present mode of cutting does not materially benefit the cutter, and is injurious to the Chemist. He should therefore hail as a salvation-measure a proceeding whereby the Chemist, if he chooses, can place himself on the same footing as the cutter. It is not necessary for him to have millions to do this. A little enterprise, or a little co-operation with his brethren, and a little wise provision on the part of manufacturers, such as we have arranged, and the Chemist's financial thermometer will at once go up.

We have said we have no agents, but as we do not ourselves supply any goods or orders amounting to less than £25, there will doubtless be an insatiable longing on the part of many of our friends to do business with intermediaries still. But for those who have the enterprise to push our goods, and if need be join some of their friends in ordering this quantity of our Preparations, there are reserved precisely the same terms that are conceded to the greatest houses in the world on a similar order. For those in a fair way of business who will take a larger order still, we are prepared to make a somewhat larger concession, but the scale of discounts soon reaches a limitation, so that the enterprising retailer need not labour at any disadvantage whatever, and may easily obtain our very best terms.

It will readily be seen that those who take good supplies of "Vinolia" products can make good displays of the same. To all such we are prepared to supply artistically-designed show-cards of high merit, also literature, in quality and style very different from the ordinary advertising circulars doled out to the trade. We think we can without challenge claim that no more creditable preparations than ours can appear in a Chemist's shop, and many have avowed their pride in having them on their counters. Not only this, but

they give satisfaction to physicians and customers, and redound to the great credit of the Chemist who introduces them. They are the embodiment of pharmaceutical perfection.

As to our Soap, it may be called **a Doctor's Soap and a Chemist's Soap.** All Chemists should bear in mind that when they buy some of the ordinary soaps by the cwt. from the traveller they have in a large measure to create their own demand, and sell an article of inferior merit on small profit, and moreover do all this in competition with the grocer, the oil shop, and the store. Whereas we create what demand there is for Vinolia Preparations, and **when a large stock of them is laid in they are already half sold.** Besides, the prestige and high reputation of our products, backed up by the medical faculty and scientific chemists of Europe, are matters not lightly to be passed over.

But we can readily imagine that the Chemist who wants two boxes of "Vinolia" Soap and three boxes of Cream may say to himself: "All this is very well, but at the present moment I only want a small quantity; later on I intend to take advantage of these offers." To such we may say that we allow such liberal discounts that all the wholesale houses should concede a most liberal margin on the smallest quantities. Those who are prepared to co-operate with us will find it, we think, to their advantage to communicate with us. Where favours and privileges are extended to us, our friends will always find that we are only too anxious to reciprocate in measures full up, pressed down, and running over.

CHEMICAL LABORATORY,
ST. MARY'S HOSPITAL, PADDINGTON, W.
June 10th, 1889.

MESSRS. BLONDEAU & CIE.,

DEAR SIRS,—I have recently inspected the process of manufacture of your "Superfatted 'Vinolia' Soap," and carefully analysed the various materials employed, and the finished products.

The results show that the ingredients are of excellent quality for the manufacture of a first-class soap and that the process is carried out in such a way as to render the products wholly free from all surplus uncombined alkaline matter, and therefore incapable of acting on tender skins, in the injurious and objectionable fashion exhibited by most kinds of ordinary soap. A further amelioration is also effected by the incorporation with the soap of extra fatty matter, well calculated to soften the skin, and diminish the tendency to irritation sometimes caused in very tender subjects by even the purest of ordinary soaps.

The Medical "Vinolia" Soap is impregnated with balsamic essential oils of antiseptic character; whilst the Toilet "Vinolia" Soap is delicately scented, and wholly free from poisonous metallic colouring matters.

I am, yours faithfully,
CHAS. R. ALDER WRIGHT, D.Sc., F.R.S.

(Lecturer on Chemistry in St. Mary's Hospital Medical School; Cantor Lecturer on Toilet Soaps, Society of Arts, London; Late Juror on Soaps, International Health Exhibition, London; Vice-President, Society of Public Analysts, &c., &c)

BLONDEAU & CIE.

RYLAND ROAD, KENTISH TOWN, LONDON, N.W.

ECZEMA.

USES AND ABUSES OF OINTMENTS, POWDERS, SOAPS.

"In acute Eczema," says Dr. Jamieson, "only the most soothing remedies are applicable. So long as a remedy continues to do good, or, in other words, so long as the patches of Eczema improve or do not grow worse, it is wise to persevere. *Remedies of the stimulant class are in all cases to be employed cautiously.* This tallies with Hebra's advice, "that whatever course be adopted in treating Chronic Eczema, constancy and perseverance are of the utmost importance. He who is always changing his plan of treatment is sure not to attain his object so quickly as one who steadily and patiently applies whatever remedy seems best suited to his case."

Agents which cause Eczema are not likely to be of use in its acute stages. In Dr. Liveing's little book we read: "Of external agents that give rise to Eczema, some act as chemical, others as mechanical irritants. To the former class belong stimulating ointments, lotions, plasters, and blisters. I have seen, for example, on many occasions, a copious eruption of Eczema produced by the free inunction of sulphur ointment, used with a view to cure an imaginary scabies." "Tars, unless well diluted with mild ointment, must never be used until the red points and infiltration of the eczematous surface have disappeared and the exudation has ceased" (Ibid). The same holds good of the terebinthinates. "Pine, cade, and birch oil are counter-irritant, very stimulating to the skin." Sulphur ointments should never be used in the early stages of Eczema, save when it is complicated with scabies (Liveing). The following on the application of unguents may come in pat, in using "Vinolia"; a plastic emollient cream that is *not to be confounded with the secret remedies brought out to cure Eczema*, and has nothing in common with any other preparation. It is from Dr. Radcliffe Crocker's "Diseases of the Skin," p. 121.

"Soothing ointments should be applied thickly spread on lint or linen in strips, and then bandaged over so that they may be closely and continuously applied to the part, and the ointment should be renewed twice a day. Such applications merely smeared on twice a day are useless. Stimulating ointments, unless very weak, seldom require continuous application. They may be used once or twice a day, according to the amount of stimulation required; but the part should always be protected from the air in the interval."

In the local treatment of Eczema, where unguents are contra-indicated and liquid applications do not suit, an excellent plan of treatment is afforded by "Vinolia" Powder. Both "Vinolia" and "Vinolia" Powder are especially valuable when the secretions are apt to become putrescent. The Powder may be applied as a simple dusting powder and as powder-bags. Of the latter, Dr. Jamieson says: "For this method of employing powder we are indebted to the ingenuity of Dr. Unna. It consists in making long narrow bags of thin cambric or muslin and partially filling them with powder, and then stitching or quilting them across so as to prevent the contained powder from shifting to one or other end. These bags are then placed between opposing surfaces, as under the mamma, in the folds of the groin, round the scrotum and under the penis, in the perineum, by the sides of the neck, or behind the ears. Every movement of the body or part causes the displacement of some of the included powder, and thus the parts can be kept, as it were, in an atmosphere of a drying or antiseptic material. These powder-bags are of much value in cases of Eczema of the Scrotum and Penis, and for use at night. Ointments are incompatible with it unless as alternatives."

It is far from our wish to urge the free use of a soap when water and soap should be very sparingly employed. According to the best authorities water and soap have caused Eczema, and prevented healing many a time and oft in acute cases. "This is especially the case when the new, delicate, and healthy cuticle is forming, for then water macerates and destroys it, and thus the duration of the disease is needlessly prolonged." "Vinolia" Powder and moderate friction may be sometimes substituted for washing. Whenever soap is indicated, "Vinolia" Soap is all that could be desired.

Prices:—"VINOLIA," 1s. 9d. 3s. 6d., and 6s. per Box; "VINOLIA" POWDER, 1s. 9d., 3s. 6d., and 6s. per Box; "VINOLIA" SOAP (Toilet), 2s. 6d. per Box of 3 Tablets; "VINOLIA" SOAP (Medical), 2s. per Box of 3 Tablets; "VINOLIA" SHAVING SOAP, 2s. and 3s. 6d. per Stick. Can be obtained of all respectable Chemists.

VINOLIA IS FREELY MISCIBLE WITH STIMULATING AND OTHER MEDICAMENTS.

BLONDEAU ET CIE, LONDON, PARIS, & NEW YORK.

English Depot—RYLAND ROAD, LONDON, N.W.

"VINOLIA" SHAVING SOAP.

A de-alkalised, de-hydrated, superfatted Bay-Rum Soap.

THE evils of ordinary soaps are doubly intensified when used for shaving, both as regards the action of the alkalies upon the face, and also of the essential oils employed for scenting. "Vinolia" Soap yields a staying substantial lather, free from alkalies, and is charged with bay-rum, the desirable qualities of which have rendered it of such widespread usefulness.

While a harmless thick lather makes shaving a comfort and pleasure, an evanescent alkaline one causes smarting, and renders the face liable to become rough and blotchy. We have thus long deferred supplying a superfatted shaving soap, because we would not send one out unless we could honestly say it was supreme. This is the only proper shaving soap to use, and will not cause disappointment.

As the medical profession are already familiar with "Vinolia" Soap, we have not deemed it necessary to prepare samples of our new production.

Prices—2s. and 3s. 6d. per stick.

"VINOLIA" SOAP {EXTRA CREAM, NO ALKALIES.

Superfatted, de-alkalised, de-hydrated.

Contains extra cream instead of free soda and potash, which eat into and shrivel the skin, hair, and nails. The only soap for skin eruptions, shampooing, and the toilet, nursery, and bath.

Prices—(Medical) **2s. and** (Toilet) **2s. 6d. per box of 3 tablets.**

"VINOLIA" {A PLASTIC EMOLLIENT CREAM.

For Itching, Burning, Redness, Roughness, &c.

It is the only product of its kind, and is a plastic emollient cream for the skin in health and disease. Bland, soothing, alterative, protective. It has lately proved satisfactory in an eczema of the face of 25 years' standing, and relieves itching instantly.

Prices—1s. 9d., 3s. 6d., and 6s. per box.

"VINOLIA" POWDER {FOR THE SKIN.

Soothing, Silken, Soluble, Soft, and Safe.

This contains no bismuth, rice powder, starch, *violet* powder, zinc, arsenic, lead, &c. It forms the most delicate transparent film on the skin, and is scented with the choicest Attar of Roses. It is a delightful anti-inflammatory protective, which does not stop the pores of the skin. For the toilet, nursery, weeping surfaces, putrescent discharges, perspiration of hands and feet, roughness and irritation, it is simply invaluable.

Prices—1s. 9d., 3s. 6d., and 6s. (in pink, white, or cream).

Can be obtained of all Chemists.

BLONDEAU ET CIE, London, Paris, and New York.

English Depôt—RYLAND ROAD, LONDON, N.W.

"PUMILINE."

The word "PUMILINE" is
G. & G. Stern's Registered Trade Mark.

CAUTION!!!

The undersigned hereby give notice that the Trade Mark Protection Society is directed to instruct its Solicitors to take proceedings against any Chemist, Druggist or other person infringing their Registered Brands, Labels, or their Registered TRADE MARK, **"PUMILINE."**

Communications to be addressed to the Trade Mark Protection Society, 1 Furnival Street, Holborn, London.

62 Gray's Inn Road,
London, W.C.

G. & G. STERN.

See page 33.

EVANS, SONS & CO., | EVANS, LESCHER & WEBB,

WHOLESALE & EXPORT DRUGGISTS,

MANUFACTURING CHEMISTS.

ESTABLISHED 1827.

CHEMICAL AND GALENICAL PREPARATIONS OF THE PUREST QUALITY.

STANDARDIZED DRUGS AND PREPARATIONS FOR HOME AND EXPORT TRADE.

TRADE MARK.

IMPORTERS OF OLIVE, CASTOR, & ESSENTIAL OILS.

SPECIALITIES.

Fluid Extracts.
Pearl Coated Pills.
Concentrated Liquors.
Concentrated Waters.
Concentrated Infusions.
Fossiline.
Frothine.
Fruit Essences.
Liq. Santal Flav. Co.
Liq. Copaibæ Co
Oleates.
Effervescing Saline.
Soluble Essences of Ginger, Ginger Ale, Lemon, Orange, Orris, Capsicums, &c., &c.
Granular Preparations.
Podophyllin Resin.
Scammony Resin.

See Enlarged and Revised Price-Currents, Monthly, Country (32 Pages); Half-yearly, Export, English and Spanish (220 pages each). The Export Lists offer unusual advantages as a medium for Advertisements.

DRUGGISTS' SUNDRIES.

SEE SPECIAL LIST, ENLARGED & REVISED, JANUARY 1890, 150 PAGES

Supplied to Registered Chemists and Druggists ONLY, and can be had on receipt of Business Card.

SOLE CONSIGNEES OF THE

"MONTSERRAT" LIME-FRUIT JUICE.

OFFICES AND WAREHOUSES—

LIVERPOOL—56 Hanover Street. | **LONDON**—60 Bartholomew Close.

LABORATORIES AND MILLS—

29 to 34 Fleet Street, LIVERPOOL.

SAMPLE ROOMS AND OFFICES—

MANCHESTER—1 & 2 Exchange Buildings. | **BIRMINGHAM**—16 Ethel Street.

CANADA—

EVANS AND SONS (LIMITED), Montreal, Toronto, and Victoria (B. Columbia)

AUSTRALIAN AGENCY—

JAMIESON & CO., Sussex Street, SYDNEY, N.S.W.

EXCHANGE COLUMN.

FOR DISPOSAL

Drugs and Chemicals.

Boracic acid, nbout ½ cwt. cheap. Offers to Heskin, 106 Waterloo Road, Ashton, Prestou.

Poppy heads.—5s. 1,000; bag 6d.; sample 3d.; small for ornshing, 1d. lh.; bags 6d. Connor, Chemist, Doncaster.

10 lbs. potass. iodid., 10s. 6d.; 1 lb. argent. nit., 3ij. stioks, 2s. 9d., quite fresh; cash or exchange for Beecham'e, Eno's or best-going Patents. Fowler, Portsea.

Educational.

Attfield's latest; clean; offers. Appleton, Stnlybridge.

Pharmaceutical Journal, posted Mondays; what offers for the year? 249/41.

Bentley's "Structural Botany," quite new, last edition, 5s. 6d., post free. F. Wheeler, North Hill, Colchester.

Wills' specimen cabinet, perfect, 2s. 9d.; Wills' "Phnrmacy," with notes, 2s. 9d.; Thorp's "Non-Metals," 1s. 6d.; last three years' *Chemist and Druggist*, 10s. Sutcliffe, Chemist, Mossley.

What offers Muspratt's "Dictionary of Manufacturing Chemistry," 8 vols., clean; *Chemist and Druggist*, 1889, complete, nnbound, clean? 257/32, Office of The Chemist and Druggist, 42 Cannon Street, E.C.

Formulæ.

Reliable recipes, 6d. each; full set of 130 neatly copied in book, 7s. 6d.; send for list "Ohemist," Edwards, Wye, Kent.

Brooks's Formulæ. - Good business may be done with the following:—"Balm of Glycerine and Liquorice"—certain cure for coughs, colds, hoarseness, whooping cough, and lung affections; most soothing to the chest, nice taste, rapidly efficacious, good all-round cough mixture; costs 10d. per lb. "Quinine and Iron Tonic"—bright and unchangeable, not unpleasant taste; a most useful general Tonic, and may be sold in large bottles for 1s., paying well. "Glycerine Cream"—Perfection of toilet requisites, quickly cures chapped hands, frost bites, roughness, cracks, tender feet, and prevents chilblains; most elegant, not sticky, deliciously perfumed. "Corn Cure"—Salicylic and iodine, does not readily dry up; this will answer when all other so-called cures fail; test, send for sample. "Bronchelixir"—Specially for bronchitis, influenza, difficult breathing, cold in the head, &c.; gives instant ease, keeps indefinitely. "Red Rose Lotion" (from recipe of Erasmus Wilson), most excellent skin depurative, removes spots, pimples, blackheads, &c.; stops irritation, is cooling and sweetly perfumed. "White Oils"—inseparable, milk white, creamy; no better ever offered; I will back it for 5l. against any in the market; costs under 10d. per lb. Recipes, 7d. each; six for 2s. 8d., with full instructions for making, use, dose, &c., post free; list of 400 recipes free. T. Brooks, Chemist, Hornsey, N.

Shop Fittings.

Glass case fronted mahogany counter with drawers below; a bargain. 242/4.

Sponge case, handsome, convenient, very cheap. "Chemist," 4 Newstead Grove, Nottingham.

Mahogany drug-drawers, wall and counter cases, shop rounds, homœopathics, and sundries. Clayton, Oxford.

Four specie jars, equal to new, as fig. 1 in Maw's, illustrations gilt, glass covers, height, exclusive covers, 21 in.; sell cheap. 258/6.

Counter case, bent glass, as Maw's A 18; as good as new; 5 feet long; price 5l. 10s. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Nest of drawers (two), 10 ft. 6 in. long, each with lockers under; price 11l. the two. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Dispensing screen, very handsome; also desk, 300 shop rounds, outside lamp, window enclosures, and entire fittings of a chemist's shop, very cheap, at Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Two nests of drawers, 50, 7 ft. long; 34, 4 ft. 6 in. long respectively, not labelled, with lockers under, first-rate condition; shop desk with two doors, as Maw's A 32, 2 ft 7 in. wide, 2 ft. 6 in. high; what offers? Portwny, 225 Jamaica Road, S.E.

Job lines.—Bargains.—Hand-made shop rounds, wide and narrow mouths, 4 oz. 3s. doz., 6 oz. 3s. 6d., 8 oz. 4s., 10 oz. 4s. 6d. 12 oz. 5s., 16 oz. 5s. 6d., 20 oz. 6s., 24 oz. 6s. 6d., 32 oz. 7s. 6d., 40 oz. 8s. 6d.; blue syrup bottles, plug stoppers, 20 oz. 9s., 40 oz. 12s. doz.; a few 20 to 40 oz. oils, 2s. 6d. each; glass graduated measures, glass and compo mortars and pestles, spirit lamps, pill machines, specie jars, carboys; also the entire shop fittings, utensils, show-cases, &c., &c. of a chemist's shop, together or separate. Natali & Co., 184 Aldersgate Street (nearly opposite Maw's). Established 1863.

Soda-water Machinery.

Soda-water plant, complete, second hand, 21l. Particulars, N. S. G. Wilcocks, 45 Avon Street, Bath.

Case hydrometers, quite new, cost 50s; what cash offers? Sydney, 17 St. Michael's Street, Folkestone, Kent.

Second-hand soda-water machinery, in good condition, for sale.—One soda-water machine complete, by Hayward, Tyler & Co., with 1½-inch pump; 1 soda-water machine complete, by Barnett & Foster, with 2-inch pump; 2 copper American generators, with double purifiers, complete; 1 wooden generator, 3½ ft. by 2½ ft. and 2 ft., on iron frame; 1 pair of 20-gallon copper American cylinders on frame; 1 12-gallon vertical copper cylinder on tripod frame; 1 Galloway's Codd's filler; 1 McEwen's turnover filler with syringe; 2 1-gross bottle washing wheels; 1 3 inch deep-well pump complete; also copper bells, syrupers, wiring stands, plain second-hand syphons, and other mineral-water trade requisites. Send for particulars and prices to Idris & Co., Ascham Street, Kentish Town, London, N.W.

Miscellaneous.

Microscopic slides; educational, medical, scientific, interesting, from 2s. 6d. dozen; lists free. B., 233 Malda Vale, W.

Bargain.—12 pints jockey club, 12 Frangipanni, No. 30, French make, 7s. pint; samples 4 stamps. "Chemist," 7 Victoria Mount, Leeds.

Few gross vermin killer, like Battle's, 3d., 6d. 1s. packets, at 1s., 1s. 9d., 3s. 3d. dozen; one each samples post free 6d. Gradidge, Chemist, Andover.

Cigars.—A few boxes Villars, Murias, Partagas and Cabanas, good condition, at low prices to clear. Write for particulars and price to Christopherson, Swaffham.

New run honey, beautiful golden colour, 6d. lb., in jars holding about 25 lbs. each; beeswax, warranted genuine, 1s. 3d. lb.; sample three stamps. Johnson, Chemist, Godalming.

40 50's very choice cigars, 5s. 6d. box, cost 7s.; 20 100's Princesses, 7s. 6d. box, cost 11s.; 5 100's 1885 Havannas, 24s., cost 32s; re Louis Kahn. John Slater, Beeston Hill, Leeds.

Black teats, good sized medium, fine rubber, 5s. per gross; same quality, two sizes smaller, 4s.; all indiarubber goods equally cheap; also spare 1s. breast-exhauster glasses and mouthpieces half list price. Butterworth, Pharmacist, Bradford.

Glass bottles, job lines.—About 50 gross 3-oz. pale green bottles for corks, suitable for pomade, vaseline, or furniture cream, 4s. per gross; 3 gross ½-pint (reputed) green glass syrups, 7s.; 2 gross pint ditto, 15s.; 3 gross 1-pint white glass syrups, 20s.; 3 gross 2-oz. white globe-necked panels, 7s. Hearn, Bottle Works, 331 Kingsland Road, London.

Microscopic objects, gorgeous polarising, brilliant opaque and entertaining slides, 3 by 1, suitable for evening exhibition, 5s. dozen list free; 4 dozen slides sent, carefully packed and postage paid, for 21s., to Australian Colonies, Belgium, Canada, France, Germany, India, New Zealand, South Africa; microscope accessories wanted in exchange. Henry Ebbage, 344 Caledonian Road, London.

WANTED.

Wanted *Chemist and Druggist Diary* for 1831; state price. 254/12.

Piping-press, good, cheap. Haddock, High Street, Brierley Hill.

Set of botanical plates (coloured), Wills' or similar; state price. 258/27.

An articulated human skull in good condition. A. Sutcliffe, 43 Whetley Lane, Bradford.

"Materia Medica" collection, Southall's preferred. Shaw, 2 The Parade, Bexley Heath, S.E.

Bracher's baking powder mixer, in fair working condition; price? S. W. M., Ohemist, Louth.

Pereira's "Selecta e Prescriptis," good condition, cheap. "Junior," Hickinbottom, Stenford.

Surplus stock of drugs, chemicals, patents, and sundries; also nest of good-sized mahogany drawers. 258/12.

Niblet's or Pindar's piping press and rotary pill cutting machine, small size, also half-gallon tincture-press; state lowest price. De Carle & Son, Chemists, Norwich.

Addresses Wanted.

Of Messrs. C. M. Hallam, chemist, late of 20 High Street, Burton, Trent; E. J. Thomas, surgical instrument maker, late of Southernhay, Exeter; W. Archer, late of 67 High St., Stratford, London; Hayward, late of 63 Willes Road, Kentish Town, London; A. E. Hobbs, late of 44 High Street, Lewes; Humphreys, late of 2 Landaff Place, Lathbury Road, Harpurhey, Manchester; J. Roberts late of 23 Narrow Wine Street, Bristol; J. Stevenson, late of 9 Tulse Hill, Brixton; J. Smith, chemist, late of Upper St. Alban's Street, Weymouth; Fry, late of 43 St. Mary's Hill, Hornsey, London; Bryant, late of 21 Lower Park Row, Bristol; McKown, late of Douglas, I.O.M.; Williams, late of 10 Lower Bridge Street, Chester; J. C. Cullon, late with W. H. Jackson, Mansty Lane, Liverpool; Messrs. Goode & Co., chemists, late of 41 St George's Place, London, S.W.; Drs. Gent, late of Stancombe House, Totterdown, Bristol; F. Dale, late of Barsdale, Weston-super-Mare. 227/27.

JOHNSON & JOHNSON

NEW YORK and LONDON,

MANUFACTURING CHEMISTS,

MANUFACTURERS OF ALL VARIETIES OF

MEDICINAL AND SURGICAL PLASTERS IN RUBBER COMBINATION

(PERFORATED AND PLAIN), AND ISINGLASS AND MUSTARD PLASTERS.

ALSO MOIST ANTISEPTIC DRESSINGS & ABSORBENTS.

IMPROVED BELLADONA PLASTER.

Increased action by the addition of Boracic Acid and a mild rubefacient, by which the activity of the cutaneous glands is stimulated, and their power of absorption increased.

We have succeeded in greatly increasing the therapeutic value of Belladonna and other Plasters.

FIRST.—By preparing the mass in a manner calculated to promote a more rapid absorption of the incorporated drug.

SECOND.—By employing (in Belladonna Plaster) a more reliable extract of the drug than is commonly used.

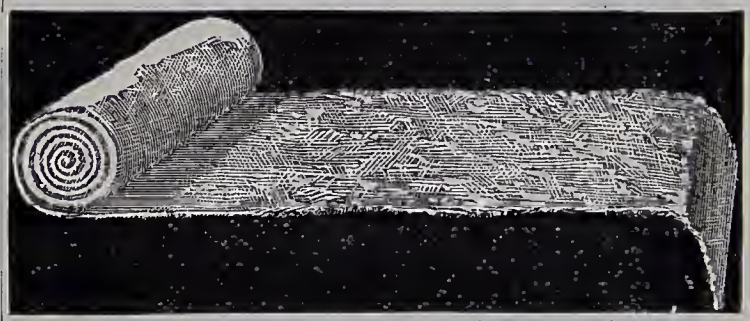
The attention of manufacturers of Medicated Plasters has hitherto been directed chiefly toward perfecting the mechanical excellence of their preparations, overlooking, to a certain extent, the real end and aim for which Plasters are made.

The extent to which counter-irritants, solvents, detergents, &c., can be utilised in Plasters to produce a mechanico-chemical alteration of the epidermis, thus rendering the skin more absorptive, has been largely if not entirely overlooked.

By the addition of Boracic Acid and a mild rubefacient to the regular Belladonna Plaster formula, several important advantages are secured. The fatty matter in the pores is dissolved by the detersive action of the former, and the glands are expanded and stimulated by the counter-irritative action of the latter, by which means not only is a larger proportion of the medicinal element of the Plaster absorbed, but the therapeutic effect is both increased and more rapidly obtained.

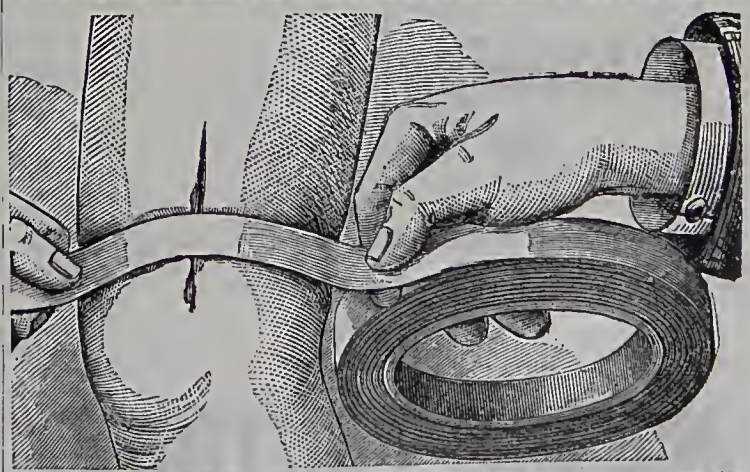
ABSORBENT COTTON IN EVEN SHEETS

Rolled with Tissue Paper between them to prevent felting.



Cotton in this form is as easily applicable as an ordinary cloth bandage. Its advantages can be seen at a glance.
Supplied in all sized Packets from 1 oz. to 1 pound.

RUBBER ADHESIVE PLASTER on HOLLOW CYLINDERS.



Pronounced by Surgeons to be the most convenient form ever devised for adhesive plaster. Besides its convenience it is much cheaper than rubber adhesive plaster on spools. It is put up in width varying from ½ an inch to 3 inches, 5 yards long, in neatly decorated tin boxes.



ANTISEPTIC TABLETS.

The increasing demand for antiseptic agents in a convenient form has induced us to prepare Corrosive Sublimate Tablets after the following formula:

Corrosive Sublimate, gr. 7,3.
Ammonium Chlor., gr. 7, 7.

The ammonium chloride is used to make the solution permanent so that the corrosive sublimate will not be precipitated by the organic matter usually contained in water. Each Tablet contains the requisite amount of corrosive sublimate to make a solution of 1-1,000 when added to a pint of water.

Our goods are supplied by all the leading Wholesale Houses in Great Britain and Ireland, also by our

SOLE WHOLESALE AGENTS, H. C. MASON & CO., 1 & 2 AUSTRALIAN AVENUE, LONDON, E.C.

who will be glad to forward Lists and terms on application.

When ordering through the Wholesale Houses care should be taken to specify the goods of JOHNSON & JOHNSON'S Manufacture.)

CHEMISTS' JUJUBES.

Having transferred our Jujube Department to our new factory where we have unlimited space and means for their production, we can offer our friends special advantages both in quality and price.

WE RECOMMEND THE FOLLOWING:

Delectable,
Voice,
Magnum Bonum,
Glycerine,
Black Currant and Glycerine,
Licorice & Glycerine,
Rose,
Chlorodyne,

&c. &c. &c.

We also make a special feature of the preparation of Jujubes from the private forms of our friends, with precision and care.

JUJUBE FACTORY,

ALBION WORKS,
HAGUE STREET,
MANCHESTER.

KERFOOT'S PEARL CACHOUS.

These beautiful little lozenges, perfectly spherical in form, weighing about 400 to the ounce, of exquisite flavour and great strength, are the most popular and perfect breath lozenges ever introduced; unlike the ordinary flat lozenges, these little Pearls have no angles to attract dust and become soiled with a slight handling, consequently they can be carried in the purse or pocket, and are altogether more portable than ordinary lozenges.

The unique appearance and flavour of this novelty quickly ensured a large sale, and its success, as might have been anticipated, quickly brought to the front some worthless imitations, the sale of which can only result in disappointment to all concerned.

KERFOOT'S Pearl Cachous

are the only genuine Pearl Cachous: they are not only better looking, but are double the strength of the imitations, and buyers are therefore requested to order the original, and thus ensure a perfect article. They are elegantly put up in attractive one-pound bottles, and are an ornament to any Pharmacy. The following flavours are always in stock—

Rose.	**Jockey Club.**
Musk.	**Violet.**
Ess. Bouquet.	**Rondeletia.**
Lavender.	**Clove Pink.**

Price 2s. 9d. per lb. in 1-lb. bottles.

Eight bottles sent carriage free to any part of the Kingdom.

T. KERFOOT,

MANUFACTURING PHARMACEUTICAL CHEMIST,
Medlock Vale Works, Berry Street,
And Albion Works, Hague Street,
MANCHESTER.

London Depot, St. Paul's Chambers, 19 Ludgate Hill.
Agent, Mr. HENRY C. QUELCH.

T. KERFOOT,

MANUFACTURING PHARMACEUTICAL CHEMIST,

MANUFACTORIES—

Albion Works, Hague Street, & Medlock Vale Works, Berry Street, MANCHESTER.

Manufacturer, by Special Process, of every description of Superior Medicated Lozenges, Medicated Jujubes, Candies, and Boiled Sugars; also Granular Citrate of Magnesia, and all Granular Preparations.

London Depôt, 19 LUDGATE HILL (Mr. H. C. QUELCH, Agent).

Our large and well-equipped Factories, furnished with the most modern engines and machinery, enable us to offer every description of MEDICATED LOZENGES and all allied preparations of unquestionable quality and at a reasonable price.

MEDICATED LOZENGES,

containing ingredients easily volatilised, or otherwise liable to injury by heat, are specially treated so as to retain as fully as possible their active properties. As a specimen of the success of our method in the treatment of ingredients of this character note

KERFOOT'S CHLORODYNE LOZENGES.

These are the best and strongest Lozenges manufactured, their sale being very large and increasing. We stamp Chemists' own names upon these and all other Lozenges in quantities of 7 lbs. and upwards. Also

Linseed, Licorice & Chlorodyne Lozenges,

the most popular and saleable as well as the most pleasant and effective Winter Lozenge ever introduced. The fact of our sale of the above Lozenges during the past winter having exceeded by several tons that of any former year sufficiently demonstrates their popular character. Chemists are invited to send their orders for the above Lozenges early, as the demand in the winter months often overtakes our output.

SPECIAL COUGH LOZENGES.

The "Special Cough Lozenges," introduced in the winter of 1882, have had a remarkable sale; they have a peculiar and distinctive flavour and colour, and are free from all opiates. They contain Verbascum Thapsus, Squill, Ipecac, Tolu, Benzoic Acid, &c., and are an agreeable and efficient Cough Lozenge. They may be given with equal safety to children and adults. The Special Cough Lozenges can be stamped with customer's own name in quantities of 7 lbs. and upwards. Price 1*s.* 6*d.* per lb.

ENGLISH BRONCHIAL LOZENGES.

These are superior both in flavour and efficacy to the American lozenges, and always amply repay the trouble of introduction. Although they contain NO OPIATE they are an efficient Cough Lozenge, and for the use of Singers they are unique.

DIGESTIVE CANDY.—This article is now prepared in two colours—yellow and dark red. It contains Rhubarb, Ginger, Cardamoms, &c., and is an excellent and pleasant stomachic. Price 1*s.* 4*d.* per lb.

HEARTBURN CANDY.—Composed of Bismuth and Magnesia; very pleasant. 2*s.* per lb.

An endless variety of Highly-finished Medicated Lozenges and Jujubes of every description.
Price Lists free on application.

46, Holborn Viaduct,
London, E.C.,
December 23rd, 1889.

LACTOPEPTINE.

ADVANCE IN PRICE.

From and after **January 1st, 1890,** the prices of

LACTOPEPTINE

will be as follows:—

1-oz. (4/6 size)	42/6	per doz.
Gross and upwards	38/-	„
4-oz. (14/- size)...	12/6	each.
Dozen and upwards	11/-	„
8-oz. (27/- size)...	23/6	„
Dozen and upwards	21/-	„

UNSTAMPED, FOR DISPENSING ONLY.

(Cost of Stamp deducted.)

4-oz.	10/6	each.
Dozen and upwards	9/-	„
8-oz.	20/6	„
Dozen and upwards	18/-	„

The small size (1-oz.) retailing at 4/6 is not sold unstamped for dispensing.

UNSTAMPED, FOR EXPORT.

1-oz.	35/-	per doz.
Gross and upwards	32/-	„
4-oz.	10/6	each.
Dozen and upwards	9/-	„
8-oz.	20/6	„
Dozen and upwards	18/-	„

☛ *Terms Net Cash, Monthly Account.*

JOHN MORGAN RICHARDS.

46, Holborn Viaduct,
London, E.C.,
December 23rd, 1889.

CARTER'S LITTLE LIVER PILLS

NOTICE.

From and after **January 1st, 1890,** the price of

CARTER'S LITTLE LIVER PILLS
will be 9/- per doz. net.

CARTER'S LITTLE NERVE PILLS
will be 9/- per doz. net.

CARTER'S IRON PILLS
will be 22/- per doz. net.

CARTER'S LIVER BITTERS
will be 36/- per doz. net.

CARTER'S BACKACHE PLASTERS
will be 9/- per doz. net.

IN QUANTITIES OF 5 GROSS AND UPWARDS.

☛ *Terms Net Cash, Monthly Account.*

JOHN MORGAN RICHARDS.
SOLE AGENT.

EECKELAERS' SOAPS.



The Celebrated Toilet Soaps and Perfumery of L. Eeckelaers, Brussels, gained the

GOLD MEDAL

(HIGHEST AWARD)
AT THE
PARIS EXHIBITION, 1889.

PRICE LIST ON APPLICATION.

JOHN MORGAN RICHARDS,
SOLE AGENT.

THE ORIGINAL

ARNICATED

WHITE FELT

CORN AND BUNION PLASTERS.

INVENTED AND ESTABLISHED BY

HENRY YOUNG,

A.D. 1846,

AND FAVOURABLY KNOWN ALL OVER THE GLOBE.

PRICES-

Arnicated White Felt Corn Plasters.		Arnicated White Felt Bunion Plasters.	
Thin, 12 in box (round 6*d.* boxes) ...	2/4 per doz. boxes.	Small Thin, 6 in box (round 6*d.* boxes) ...	2/4 per doz. boxes
Thick, 12 in box (original 1*s.* fancy boxes)	3/4 ,,	Thick, 6 in box (original 1*s.* fancy boxes)	3/8 ,,
Thin, 1 gross in box	1/10 per gross.	Large Thin, ½ gross in box	4/6 per gross.
Thick, 1 gross in glass-top box	3/0 ,,	Thick, ½ gross in glass-top box	6/0 ,,

SUBJECT TO THE DISCOUNTS ALLOWED BY WHOLESALE HOUSES.

N.B.—Please see that YOUNG'S Goods are supplied, as there are many worthless Imitations.

HENRY YOUNG, Manufacturer, LONDON.

30 VARIETIES AT FROM 2/- PER DOZEN PAIRS.

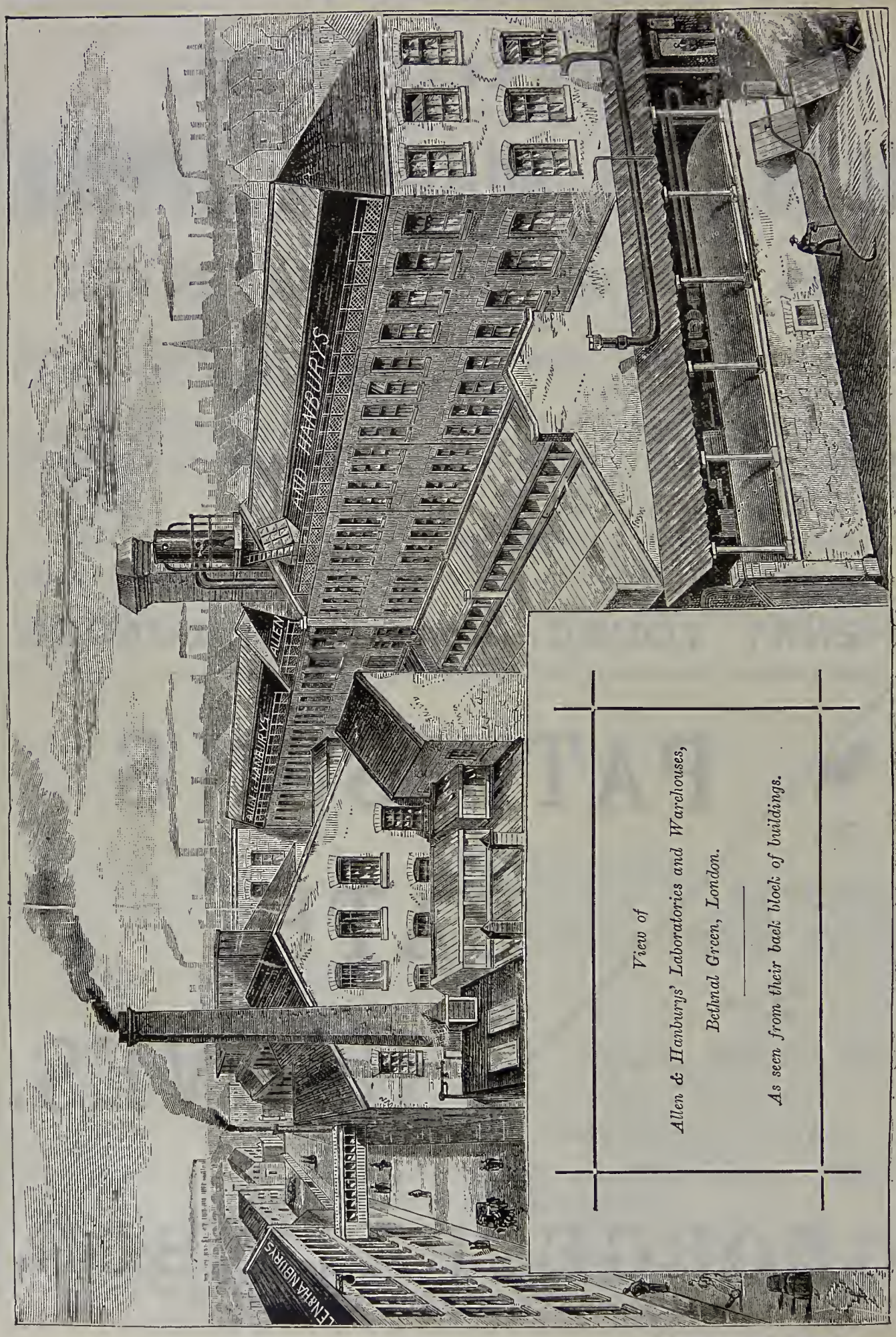
PATTISON'S BATH GLOVES.

LISTS ON APPLICATION.

ORIGINAL MANUFACTURER,

GEORGE PATTISON,

139 St. John Street Road, LONDON, E.C.



View of

Allen & Hanburys' Laboratories and Warehouses,

Bethnal Green, London.

As seen from their back block of buildings.

[*See also pages* 21, 22 *and* 23.

Allen & Hanburys'

Malt Extract.

(PREPARED IN VACUO.)

ALLEN & HANBURYS desire to call the especial attention of the Trade to this article. The very considerable quantities required for certain dietetic articles, manufactured under Letters Patent with ALLEN & HANBURYS' Extract of Malt, and the increasing demand for the Extract itself, have induced them to enlarge and improve their vacuum and other special apparatus for the production of the article, and they are now prepared to supply a very large demand. From the quality of the malted grain employed, and the care bestowed on the details of manufacture, including special temperatures throughout the process, ALLEN & HANBURYS can with confidence recommend it as second to none in its flavour, nutritive value, and power of liquefying gelatinised starch.

Special Quotations for very large Quantities.

Allen & Hanburys'

Castor Oil.

(OLEUM RICINI INSIPIDUM. A. & H.)

Pure, Active, and Absolutely Free from Odour and Unpleasant Taste.

"THE CHEMIST AND DRUGGIST" writes:—

By producing a tasteless and odourless Castor Oil Messrs. ALLEN & HANBURYS may be congratulated on having achieved a really notable triumph. Their produce certainly has no trace of odour, and it is as free from taste as pure olive or almond oil. It is rather difficult to exactly appreciate this fact, and it is probable that the present generation will hardly fully understand what has been done for them. Castor Oil has an evil reputation clinging to it, which it is impossible for any of us to forget as we approach it. It is only necessary, however, now to dismiss all prejudice from the mind, and a dose of Castor Oil need no longer inspire the dread which clusters round its name in every household.

Allen & Hanburys'

Cod Liver Oil.

Pale—Bright—Limpid and of delicate flavour, maintaining its brilliancy at 32° F.

ALLEN & HANBURYS being Manufacturers, and not merely Importers, are able to guarantee the absolute purity of their Oil, whilst their long experience of over 30 years enables them to supply Oil of exceptional quality.

Samples and Quotations for large quantities forwarded on application.

FISHING STATIONS—LONGVA & KJERSTAD, NORWAY.

Plough Court, Lombard Street, London.

[*See also pages* 20, 22 *and* 23.

Allen & Hanburys

MANUFACTURERS OF

TABELLÆ



In Bulk, or put up in small Boxes and Bottles.

Tabellæ, from their portability and exactness of dose, will be found a convenient mode for administering some medicines, especially such as are required to be given at frequent intervals and in small doses, and some that are sweetened with Saccharin may be substituted for ordinary lozenges when it is undesirable to give sugar.

Those which are generally applied to the mouth and throat, such as Chlorate of Potash, Chlorate of Soda, and Chloride of Ammonium, either alone or in combination with Borax, are in numerous cases preferable to the ordinary gargles and mouth washes, in that, as the Tabellæ gradually dissolve in the mouth, the affected surfaces are constantly brought into contact with a solution of the remedy, and from the facility with which they can be carried in the pocket they can be used at all times.

Aconite Tincture, m. j.
Acid Arsenious, gr. $\frac{1}{50}$ and $\frac{1}{100}$.
Aloin, gr. $\frac{1}{5}$ and $\frac{1}{10}$.
Aloin Comp.
*Ammon. Chloride, gr. iii.
" Borate, gr. v.
" Bromide, gr. v.
" Bromide, gr. x.
*Ant. Acid (Sir Wm. Roberts).
*Antipyrin, gr. v.
*Antifebrin, gr. iii.
Antim. Tartarata, gr. $\frac{1}{120}$.
Belladonna Tinct., m. j.
*Bismuth Carb., gr. v.
*Bismuth and Soda.
* " and Ginger.
*Borax, gr. v.
Caffein Citrate, gr. j. and gr. ij.
" Hydrobromate, gr. ij.
Calcium Sulphide, gr. $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{10}$.
Calomel, gr. j., $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{10}$.
*Camphor, gr. $\frac{1}{2}$.
Cannabin Tannate, gr. ij.
*Cascara Sagrada, gr. ij.
Chloral Hydrate, gr. v.
Chloralamide, gr. v.
*Cocaine, gr. $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{8}$, $\frac{1}{10}$, $\frac{1}{20}$.
Codeia, gr. $\frac{1}{8}$.
Confectio Aromat., gr. v.
" " c. Opio, gr. v.
*Digestive, gr. v.
Digitalis Tinct., m. j.
Dover's Powder, gr. v.
Euonymin, gr. $\frac{1}{4}$.
Ginger.
Hydrarg. c. Cretâ, gr. j, $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$.
Hydrarg. Iod. Rubr., gr. $\frac{1}{20}$.
" " Viride, gr. $\frac{1}{8}$.
" Perchloride, gr. $\frac{1}{100}$.
Hyoscyamus Tinct., m. ij.
*Kino.
*Lithia Carbonate, gr. v.
* " Citrate, gr. v.
*Magnesia Carbonate, gr. v.
* " and Ginger.
* " and Peppermint.
Manganese Dioxide, gr. ij.
Menthol, gr. j.
Morphia Mur., gr. $\frac{1}{4}$, $\frac{1}{8}$.
* " " gr. $\frac{1}{40}$.
* " and Ipecac.
Nitro-Glycerine, gr. $\frac{1}{100}$.
Nux Vomica Tinct., m. j.
Opium Tinct., m. ij.
Papaïu, gr. j.
*Pepsin Porci, gr. ijss.
*Peppermint.
Phenacetine, gr. v.
Podophyllin, gr. $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$.
*Potassium Bicarbonate, gr. v.
" Bromide, gr. v.
" Chlorate, gr. v.
* " Chlorate & Cocaine, gr. $\frac{1}{20}$.
* " and Ammon. Chlor.
*Potassium Chlorate and Borax.
* " " Borax & Cocaine, [gr. $\frac{1}{20}$.
* " " " gr. $\frac{1}{100}$.
" Iodide, gr. iij.
" Permanganate, gr. j. & gr. ij.
Quinine, gr. $\frac{1}{10}$.
* " gr. j. and ij.
*Red Gum.
* " and Cocaine.
*Rhatany.
*Rhubarb and Ginger.
* " Ginger and Soda.
* " and Hydrarg. c. Cretâ.
Salol, gr. v.
*Sal Prunella, gr. v.
*Santonine, gr. j.
*Sodium Bicarbonate, gr. v.
* " Bromide, gr. v.
* " Chlorate, gr. v.
" Nitrate.
" Salicylate, gr. v.
*Salicine, gr. v.
*Soda Mint.
Strophanthus Tinct., m. ij.
Sublimate. POISON.
" Compound. POISON.
Sulphonal, gr. v.
*Sulphur Compound (Dr. Garrod).
*Tannin.
* " and Cayenne.
Urethane, gr. v.

These of the above Tabellæ marked * may be had sweetened with Saccharin, and will be found much more palatable and pleasant to take, whilst their medicinal value is in no way affected.

In Bottles, to Retail at 1s., 2s. 6d., and 4s. 6d. each.

Chlorate of Potash, Voice, Bicarbonate of Potash, and similar are also put up in small boxes for the pocket.



TABELLÆ SACCHARINI (A. & H.)

CONTAINING ½ GRAIN OF SACCHARIN IN EACH.

These will be found very convenient for sweetening Tea, Coffee, Cocoa, &c. One is sufficient for an ordinary tea-cupful.

100	tabellæ in bottle	1s.	retail.
300	" "	2s. 6d.	"
620	" "	5s.	"

PRICES FOR TABELLÆ IN BULK ON APPLICATION.

PLOUGH COURT, LOMBARD STREET, LONDON, E.C.

[*See also pages* 20, 21 *and* 23.

SPECIAL MANUFACTURES.

SEE ALSO PAGES 20, 21 & 22.

Allen & Hanburys

Compressed Drugs in Boxes and Bottles for the Pocket, and in Bulk. Tabellæ can be had Plain or Sweetened with Saccharin.

Tabellæ.

Allen & Hanburys

British Pharmacopœia, Throat Hospital Pharmacopœia, Private Formulæ.

Lozenges.

Allen & Hanburys

A partially digested Malted Food. Easily assimilated. In Tins at 1*s.*, 2*s.*, 5*s.*, and 10*s.*

Infants' Food.

Allen & Hanburys

Put up in Bottles with Plain Labels, also in Bulk. All other Effervescent Preparations.

Effervescent Saline.

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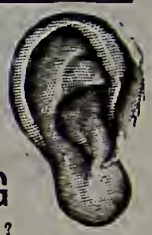
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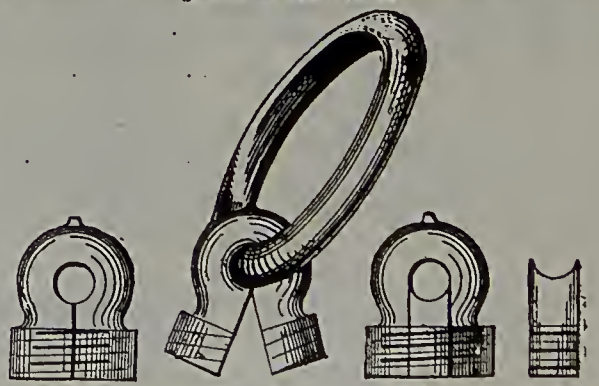


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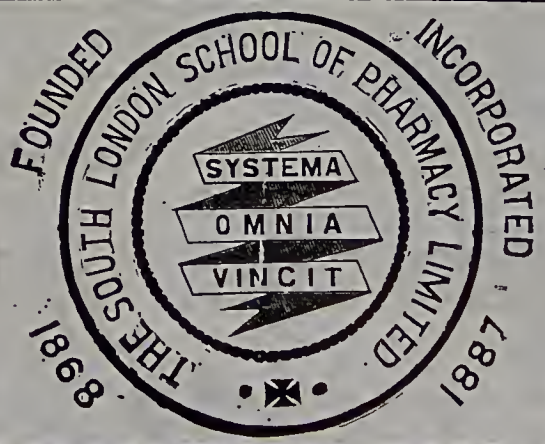
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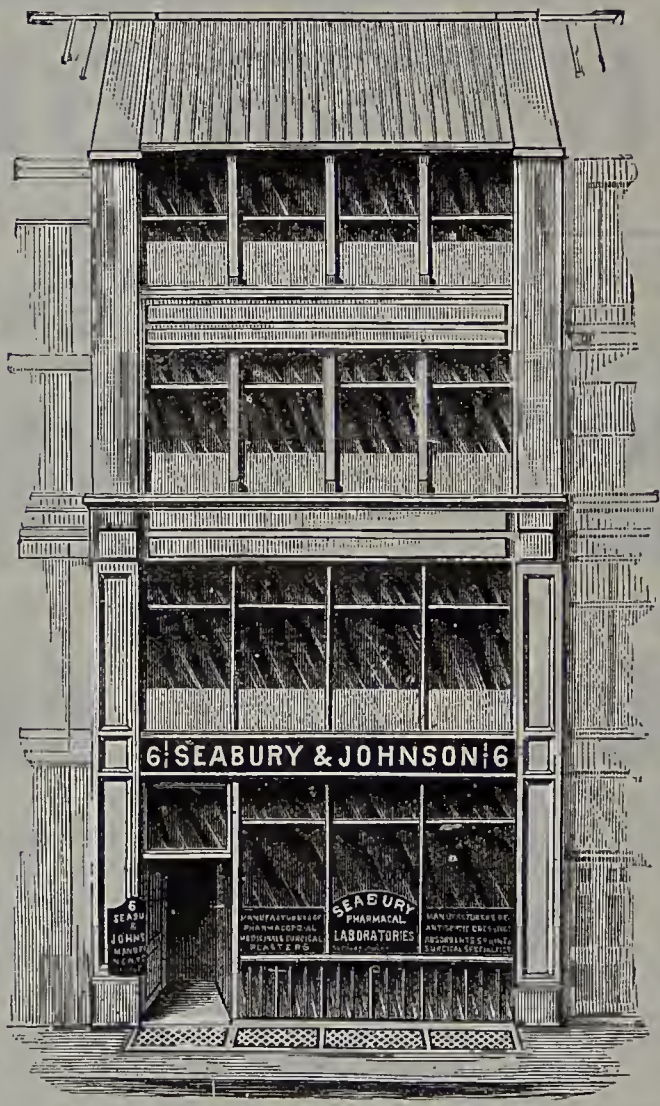
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A Thousand Guineas;

and the presentation will probably come off in the course of next month. The event will be of some considerable interest in the journalistic world, for the most aristocratic organs by no means despise their advertisement departments. Moreover, the occasion lends itself to many reflections worth the attention of the socialist, the philosopher, the cynic, the artist, and the author, as well as the printer and publisher. We refrain from these at present. They will be dealt with in due time, we doubt not, by such authorities as George Augustus Sala, Andrew Lang, James Payn, and Mr. Barratt himself, and we have no wish to anticipate their learned comments. But the announcement of this presentation reminded us that Mr. Barratt could, if he would, talk very interestingly and instructively concerning his experiences, and one of us, therefore, went to New Oxford Street on the search for copy.

Now Mr. Barratt is remarkable in several respects; and in one especially his remarkableness is inexplicable. He has a large business house in New York, and he spends a good many weeks of each year in that city; there is also a depôt at Melbourne to control, and his friends seldom visit the Continent without meeting him somewhere there; he spends a lot of valuable time in club life, in coaching, fishing, shooting, yachting, and entertaining, and yet

He is always on Hand

amid the artistic surrounding of his offices in New Oxford Street, and none of the details of the vast business conducted there, except the most ordinary routine, escape his touch, though it may be added, for the sake of his friends, that none of them ever disturb his equanimity.

Reverently ascending the marble stairs, our representative had no trouble in finding Mr. Barratt, but it was not quite so easy to secure the materials for an article. Mr. Barratt, as may be supposed, has no squeamish reluctance in regard to publicity, but he had hitherto refused all applications for his portrait for publication, scarcely realising, perhaps, that his achievements have made him an interesting personality. His modesty will have to be intruded upon next month, however, when he faces the journalists at the Barratt banquet, and our representative had no delicacy, therefore, in pressing for permission to let the speaker at this interview appear in something like bodily presence to the readers.

"What is your

Present Rate of Expenditure

on advertising, Mr. Barratt?"

"It was above 100,000*l.* last year, and will certainly exceed 110,000*l.* in 1889. I should think it will be very near 120,000*l.* My budget for this year includes contracts for 4,000*l.* worth of advertising at the Paris Exhibition."

"Do you think exhibition advertising pays the advertiser?"

"This one should. There has never been anything like it before, or one which will be seen by so many people. I consider that good advertising which hits the largest number of people for the smallest outlay of money."

"Is there already a trade for

Pears' Soap in France,

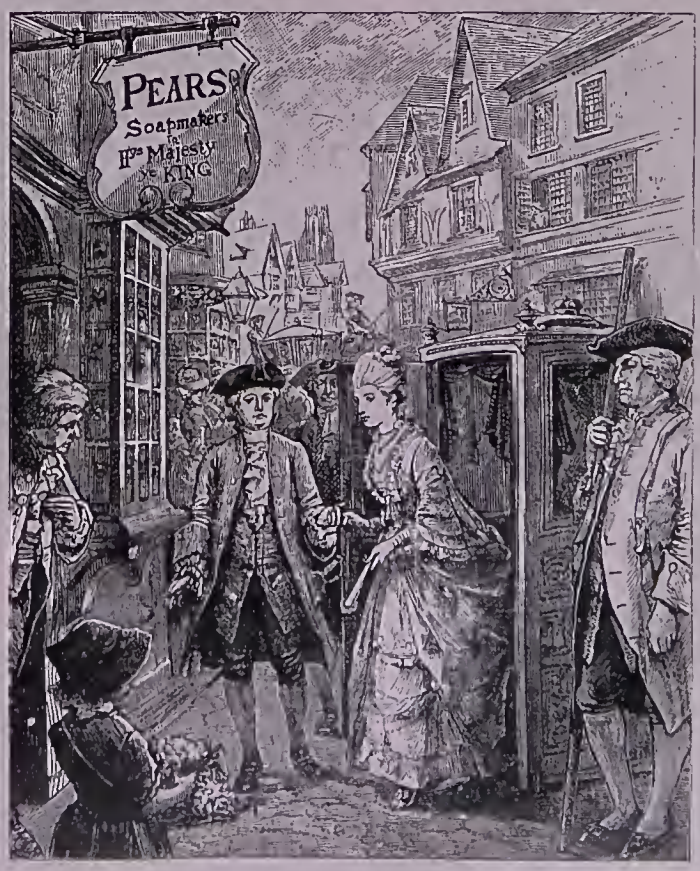
that is, among the French people?"

"To some extent, but I doubt whether it could ever pay to advertise soap in France on anything like the scale we advertise in this country. I don't think any of the Latin races use soap, or could be persuaded to use it, anything like as freely as the English, including, that is, the Americans and Australians. It is true that some expensive fancy soaps are made and sold in France on a fairly large scale, but these are bought rather for perfumery than for cleansing purposes."

"May I ask for some sketch of

The Gradual Progress of your Advertising

to its present colossal extent?"



"Well," said Mr. Barratt, taking a bundle of old newspapers from a drawer in his desk, "here is a collection of

some of the old advertisements of the firm." Newspapers back to 1807 were in this bundle, the favoured ones being the *Times*, *Morning Herald*, *Courier*, *Bell's Life*, *Bell's Weekly Messenger*, &c. Mr. Barratt said he was employing a man at the British Museum searching for older advertisements of the firm, which, it will be remembered, dates hack to 1789. They are, therefore, now oelebrating their centenary.

Messrs. Pears' advertisements hulked very well in those early papers. The firm have always catered for beauty, and in the first quarter of this century, at all events, did not rely exclusively on their transparent soap to yield it. Their advertisements recommend among other temptations besides the soap a "botanic oream," a "Malabar dentifrice," a "liquid hloom of roses," "Persian cotton or portable rouge," and other contrihutions to the armoury of the female mashers among our grandmothers. Rose and pink saucers, apparently for tinting the complexion, were also warmly recommended, and it is said that at one time in their history a pet pig was kept in Wells Street, where the firm were located, and ran ahout with his skin dyed with the colours which these saucers supplied. Some of the old advertisements refer to an action tried in the Court of King's Bench before Lord Ellenborough,

On December 6, 1809.

It appears that a certain John Watson had patented a transparent soap and had sned Andrew Pears for infringement; so the action was fonght to try "who was the real anthor of this cnrious, important, and usefnl discovery," and the advertisement informs us that "the jnry hy their verdict, in concurrence with the general opinion of every individual in Court, stamped Watson's patent with the opprobrium of presnmptnons arrogance, and estahlished Mr. Pears's anthority to prepare and vend the gennine Transparent Soap;" an authority of which he and his snccessors have abnndantly availed themselves.

"Do yon mind giving me an idea how you divide the money you spend—placards, newspapers, magazines, railways, &c.?"

"That will require looking np," was the answer; "but I will get the information for you roughly." Mr. Barratt has since given us a statement from which it appears that of the 100,000*l.* spent last year abont 67,000*l.* was allocated to the United Kingdom, 25,000*l.* to America, 5,000*l.* to Australia, and perhaps 3,000*l.* to India and certain colonies. The proportion spent on newspapers and periodicals generally amounts probahly to 70 per cent. of the whole.

"Snppose you were to suddenly cease all your advertising, what do yon think would he the effect?"

"For a time it would not make much difference to our husiness," Mr. Barratt said. "We did stop all advertising for six months some six or seven years ago, in consequence of a fire at the factory, and there was no appreciable difference in the demand. Bnt in twelve or fifteen months I shonld expect the results would become apparent."

"Then you might

Save a Hundred Thousand Pounds?"

"Yes; but that wonld be no good to us. All the 'fixed' factory and office expenses all over the world would be still incurred, with a diminished turnover." And this led Mr. Barratt to a remark which is worth noting. "People seem to imagine," he said, "that an article which is largely advertised must be dearer to the consnmer than one which is not advertised. But that is not sound reasoning. If a man forces a large trade by extensive advertising the peroentage of his manufacturing expenses becomes much smaller than it is in the case of a small maker. No one, for instanoe, can make soap so cheaply as we can. The office and general expenses attendant on the production and sale of 500,000*l.* worth of soap are not mnch greater than those involved in respect of 100,000*l.* The rent of this place, though it is that of a palace, is far less in proportion to our returns than other makers pay for far less sumptuous offices; in the same sense our electric lights are much cheaper than other folks' gas; and, of course, we can buy the raw material on the best possible terms. And, as a matter of fact, notwithstanding the growth of our advertising expenses, we have always charged the same price for our soap as we did when we spent much less. During the Russo-Turkish war, indeed," Mr. Barratt added, "in consequence of the price of otto, we sold all we made at an actual loss rather than risk injuring onr business by changing our terms."



MR. THOMAS J. BARRATT.

"Speaking of terms, Mr. Barratt, have yon anything to say in regard to the

Cutting of Profits by Retailers?"

"Not mnch; I am sorry for the chemists, but am helpless. It is not possible for the manufactnrers to interfere with success, and it is *dishonest to pretend to do what they know they cannot achieve.* They have tried various plans in 'protective' America, bnt none have heen snccessfnl, and none ever will he. A manufactnrer may hope to promote and foster his business by enlisting the sympathies of the retail dealer, *under pretence of protecting him*, bnt the moment the husiness is snfficiently large it will he governed by natnral laws, and he will have no control over the retail prices. In the meantime the small manufacturer may have estahlished himself *at the cost of the retailers' labour.* Is that honest? Anyhow, I shonld class such mannfaoturers as John Bright did protectionists generally—either as knaves or fools. I am in all respects a freetrader, and do not believe in any artificial means of regulating prices. We do all we can for the smaller dealers *by putting them on exactly the same terms as the largest buyers.* Anyone who buys five pounds' worth of soap from us gets as much discount as the dealer who buys five thousand pounds' worth; and there are several retailers who huy a good deal more than five thousand ponnds' worth a year from us."

"Was there not some talk a while back of this business being made into a company?"

"Yes. We were offered

A MILLION STERLING

in cash for it. But it was to be offered to the public at very considerably more by the syndicate, and, of course, we should, as directors, have to earn a dividend on money which



would not have been in our pockets. No; if it come to a company, *the trade and the public shall have the profits* usually bagged by the promoter. Pears' soap does not want the introduction even of a Rothschild. That was why the proposal was declined."

On a subsequent occasion we had another conversation with Mr. Barratt both at his offices and at his club, when he narrated

SOME OF THE EXPERIENCES

of his advertising career.

"There's a letter," he said, "which came by the last post. We have such every day, if not by every post."

The letter was dated from an office in the City, and would seem to have been written by a man of fair education. He



enclosed two suggestions for advertisement, one in English, the other in French. They consisted of three or four doggrel rhymed lines about the Shah in connection with Pears' soap, and their author's modest estimate of them was indicated by a brief accompanying note as follows:—

"SIR,—I send you two forms of advertisement which I am told will be very successful. As no time should be lost, you could publish them on receiving them if you like to forward me a cheque of 100*l*. Pray return at once, though I hold a copy for other arrangements. In haste,

"Yours faithfully."

"That's a specimen of the blithering idiots who write to us," was Mr. Barratt's commentary. And then he sent for an album of curiosities of the kind, which is kept in the office. "Fond mothers are among our most frequent correspondents in this way," he says, "sending us the productions of pen or pencil of their remarkable little boys, and willing to accept in acknowledgment any consideration, from a few stamps up to a share in the business. This is the kind of thing:—

"Pears' pure and fragrant soap, everyone should try it,
As those who do, they're always sure to buy it:
Rich in its scent, amber its colour,
So I can recommend no purer and no other."

"Correspondents are not all stupid, however. Here is one," says Mr. Barratt, "who, referring to our picture of Lady Macbeth trying to wash the stain of Duncan's blood from her lily hand, and our suggestion that Shakespeare was probably unacquainted with soap, refers us to the play of *Henry V.*, act 3, prologue, where he says Pears' soap is actually mentioned in the lines—

"A city on the inconstant billows dancing,
For SO AP PEARS this fleet majestic."

Turning to other albums Mr. Barratt shows us thousands of press references to Pears' soap. These include numerous comic parodies of their most popular advertisements. "The Dirty Boy," and "He won't be happy till he gets it," have been the favourite subjects for political squibs, and have been often very happily treated. "Bubbles" is beginning to attract the caricaturist's attention.

SUITABLE ARTICLES TO ADVERTISE.

"Do you regard soap as a particularly susceptible article for great advertising?"

"No; but we are in the soap business; that is what made us advertise it. Pills are very much more profitable, and I



should say there are various articles of daily use which I could name for which a great demand could be created if freely advertised. I have often thought, for instance, that there is a million to be made by advertising a brand of good claret. You can go all over the country, and if you want a glass of beer or a glass of stout, you know you can get a

good article if you ask for Bass or Guinness. What is wanted is a well-known hrand of claret which you can ask for in the same way; and to attain to such a reputation nowadays free advertising is necessary. I am certain I could make a fortune out of an invariably good '*ruby claret*.' It, however, wants a fortune to start it."

This hit of the conversation had nothing to do with the subject in hand, hut we throw it in for the benefit of any readers with a hundred thousand pounds which they want to venture on something.

It would take a considerahle space to give a mere list of the

Scientific and Artistic Notions

which Mr. Barratt has employed and put before the public during the past dozen years in the form of advertisements. He is artistic himself, and the dissemination of high-class art production appears to have been a lahour of love with him as well as a commercial snccess. Most of his ideas have hecome familiar enough to the English-speaking race, and the sketches accompanying this notice will recall some of them to memory. It is obviously impossible to indicate hy any method of calculation which has proved the best financial success, but Mr. Barratt seemed to regard his

Complementary Colour "Fact,"

as probably the one which attracted most attention in proportion to the money spent on it. The requirement, to gaze on it fixedly for thirty seconds, was certainly calculated to fix the words "Pears' Soap" on the mind of the investigator, and whether he saw the complementary colour or not, he was in either case likely enough to ask his friends and his family to experiment as well. It will be remembered that Messrs. Pears offered to pay 1,000*l.* if the "fact" they made so prominent could be proved to be untrue. Many were the claims put forward for the 1,000*l.* hy persons who thought it sufficient evidence to say *they* could not see the complementary colonr. One individual actnally commenced an action against them to recover the amount, hut he seems to have taken advice before he had got very far. Actions were actually taken against a numher of hill-stickers and owners of hoardings on account of the attractions of the placards, crowds heing assembled in inconvenient spots, striving to attain to and to understand the optical science involved.

"The Dirty Boy"

was exhihited in the form of a plaster cast in the Paris Exhihition of 1878. Mr. Barratt gave the artist, Focardi, 500*l.* for the marhle statue and the right of reprodnction, "and that advertisement," he added, "is the only one which cost me nothing," the sale of the terra-cotta and other representations of the original having more than repaid the expenditnre on them. Mr. Barratt commissioned Focardi to produce a "Clean Boy," and gave him another 500*l.* for that; hut like Milton's "Paradise Lost" and "Regained," and many other historical parallels, the companion work failed to attraot or please to anything like the same extent.



"Another very cheap advertisement," Mr. Barratt remarked, "was obtained by stamping 'Pears' Soap' on

French Pennies.

We got a thousand ponnds' worth, and having had the words stamped on them we supplied them to 'bus condnctors and others at fonrteen for a shilling. The 'bns and car companies soon refnsed to take them, and, as you may remember, these pennies were mentioned in the Housc of Commons. The Chancellor of the Excheqner requested us not to issue any more, and we agreed that we would not. But the whole question of French pennies was raiscd ahout the same time, and an Act was passed oalling them in. When this had been done the French authorities refused to take baok those pennies which borc onr advertisement, and the English Government had to bear the loss themselves of having these meltcd down into bronze for coining. That advertisement wa: a fairly cheap one for us."

"You offered thc Government to print

The Census Papers

for them, did yon not?"

"Yes, and if they had accepted our offer it would have saved money to the nation, and would have heen a good advertisement for us. We shonld have printed onr announcement on the backs of the papers, and should have thus got it into every house in the United Kingdom. The matter was seriously considered by the authorities, and I happen to know was discussed at a Cabinet Conncil. But we scarcely expected to have it adopted. Now a syndicate, following our lead, has made a proposal to print advertisements on the hacks of postage-stamps. We never hring ont and originate any new idea long before a score of

Imitators

follow us. My last 'Good Morning advertisement has already been imitated by more than thirty other advertisers, either as 'Good Morning,' 'Good Afternoon,' 'Good Evening,' or 'Good Night.' These imitations serve to direct attention to our advertisements, and so do us good indirectly. I fnlly appreciate that imitation is the sincerest form of flattery, hnt I always wonder why people don't ride their own line. They might win a prize. All the imitators of onr soap, for example—and thcy are numerous—are a hroken-kneed lot—in the race far, far hehind. Not one has made a fortune. Some advertisers are following our lead in huying great works of art for reproduction on the walls and hoardings. That is an expensive business, but I am glad to see it, for by that means the artistic sense of the public must he developed. We were the first to commission a Royal Academician to paint a picture for advertising pnrposes. That was with Marks's picture, 'Cleanliness is next to Godliness.'"



"Do artists ohject to this reproduction of their works for puposes of advertising?"

"The greater the artist the less his ohjection." "Those withont fear of their repntation?" "No." "Those who are douhtful?" "Yes, sometimes. Bnt it has seemed to me that it is their hrother-artists they are frightened of. This is an advertising age. Statesmen like it and doctors like it; why not artists? Of course they like it. Don't they all want to be 'on the line' at the Academy? It pays, especially when other folks pay the bill for them. Then, again, it henefits art generally, as well as the individual artists. It oreates a lovc of art, and henoe a demand for it, amongst the people. 'Yon Dirty Boy,' 'Bubbles,' &c., have becn seen hy more people than all

A Copy of this Supplement is inserted in every number issued of "The Chemist & Druggist."

The Chemist and Druggist

SUPPLEMENT

Businesses Wanted.
Businesses for Disposal.
Premises to Let.
Auction Sales.

SATURDAY, JAN. 25, 1890.

Partnerships.
Situations Vacant.
Situations Wanted.
Miscellaneous.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.

CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—**LONDON, S.W.**—Good Class Retail and Dispensing Business; returns about £700 yearly; business capable of being much increased; single-fronted, well-fitted shop, and moderate stock; valuation only required; worth attention.

2.—**LONDON.**—Main thoroughfare: good-class profitable business; returns nearly £1,250 yearly; shop well fitted, and good stock; vendor having other engagements will accept any reasonable offer.

3.—**LONDON, N.**—An old-established and profitable Business, situate in good middle-class locality; returns about £500 yearly, and capable of being much increased; rent £50 on lease; about £500 required, or offer considered.

4.—**LONDON, N.W.**—Retail and Prescribing; held by vendor 20 years; present returns about £700, with profits above the average; single-fronted shop; 7-roomed house, held on good lease; vendor will accept £350 to effect an early sale, being in ill health.

5.—**LONDON.**—Ready-money locality; Mixed Business; established many years; returns £1,450 yearly, with good profits; about £1,000 required, part of which may be paid by instalments if wished.

6.—**LONDON, N.**—Good Family Business; Retail and Dispensing; returns £650 yearly; well-fitted shop and good stock; vendor is retiring from business, and will give good introduction for about 12 months; reasonable terms can be arranged; full particulars on application.

7.—**LONDON, W.**—First-class Dispensing and Retail; returns between £1,700 and £1,800 yearly; very handsome shop and commodious residence; particulars will be furnished on receipt of London reference; the purchaser must be prepared to invest about £2,300.

8.—**SURREY.**—An old-established good-class Business; average returns from Mixed Trade over £1,100 yearly; good opportunity for a pushing man; comfortable house with garden, rent very moderate; price about £800.

9.—**HANTS** (Seaport).—Retail and Prescribing Business; established many years; present take £500 yearly; good prices; well-fitted shop; good-size house with garden; very moderate rental; price £450, or offer.

10.—**EASTERN COUNTIES** (Seaside).—First-class Retail and Dispensing Business, situate in a good town; returns average £739, with nearly 50 per cent. *net profits*; handsomely fitted shop and good stock; full particulars on application with reference.

11.—**HOME COUNTY.**—First-class Retail and Dispensing Business; returns £800 yearly, increasing; *net profits* about £300; single-fronted well-fitted shop and good stock; small garden and stabling attached; about £800 required.

12.—**DERBYSHIRE.**—Fashionable Town; Retail and Dispensing Business; returns over £1,000 yearly; large and convenient premises; terms, valuation only required.

13.—**SURREY.**—Unopposed Country Business, of good class; returns about £450 yearly; can be much increased; newly fitted shop, and good stock; convenient house and good garden; price about £350.

14.—**KENT.**—Near town; small increasing Retail and Prescribing Business; returns under management £35 per month; can be much increased; large and convenient house; about £250 required, or reasonable offer accepted.

Particulars of any of the above will be furnished on application.

N.B.—NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country; particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London agent.

SPECIAL NOTICE.—TO PRINCIPALS AND ASSISTANTS.

MESSRS. ORRIDGE & Co. Register Vacancies for Situations FREE OF CHARGE.

ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.

SALE BY TENDER.

RAMSGATE, Kent (60 Queen Street).—Messrs. Berdoe & Co. are instructed to sell by Tender the Goodwill, Stock, and Fixtures of this old-established light Retail and Dispensing Business, centrally situated in one of the best positions in Ramsgate. Premises comprise large double-fronted shop, well-fitted in mahogany, heavily stocked, good residence with cottage in rear, held on lease at a moderate rental. The returns last year were £2,400; gross profit £730; net profit over £500; stock and fixtures are worth over £600. Tenders may be made either in a lump sum, or premium for goodwill and valuation; any sum over £600 may remain for 12 months. Tenders will be received up to Tuesday, Feb. 4, 1890. Printed forms and particulars on application to Messrs. Berdoe & Co., 30 Jewry Street, Aldgate, E.C. Photo on view.

TO LET.

SHOPS TO LET, Main Road, Croydon, one of the best business towns in England, with attractive bold fronts, 6 good rooms, scullery, cellarage, bath room (fitted hot and cold), capital 2-stall stable; 15 adjoining shops were let long before completion, only one left; real opening for Chemist and Photographer. Apply, Batley & Linfoot, Works, South End, Croydon.

FOR SALE.

A LARGE quantity of new shop rounds, gold labelled, very much under usual prices; 40 oz. 11*s.* 6*d.*, 20 oz. 9*s.* 6*d.*, 10 oz. 7*s.* per dozen, including labelling any names; also other sizes, and a quantity of blue syrups and shop jars very cheap; any number supplied. 260/4, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BUSINESSES WANTED.

WANTED, a good-class business, returning not less than £1,000; seaside or inland watering place preferred; all answers treated with secrecy. Address, Mr. Starkey, Conservative Club, Nottingham.

CHEMIST and Druggist.—Wanted to purchase good Retail and Dispensing Business, or a Partnership therein in Scotland; capital moderate. Address, No. 36, Keith & Co., Advertising Agents, Edinburgh.

WANTED, in Yorkshire or Lancashire, good general Business, returning from 700*l.* to 1,000*l.*; can take immediate possession. Y. & L., c/o THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

ADVERTISER is open to purchase a really genuine Light Retail Business in London or the provinces returning £700 to £1,200; seaside or village trade not objected to; full price paid for a reliable concern. Particulars to be sent to "Confidential," Office of the CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

F. J. BRETT,

VALUER, LEICESTER,

60 St. Stephen's Road.

References to principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.

BUSINESSES THOROUGHLY INVESTIGATED FOR BUYERS. 20 YEARS' EXPERIENCE.

LANCASHIRE.—Returns £1,600 to £1,700; General, Retail, and Prescribing, with Family trade and fair Dispensing; shop large and well fitted; to bond-fide buyers every investigation courted; price £800.

SHEFFIELD.—Light Retail, Dispensing, and Prescribing; returns £450; appointment worth £25 per annum; price £400.

BIRMINGHAM (Suburb).—Light Retail, Dispensing, and Prescribing; returns over £600; price £550.

LANCASHIRE (Seaside).—Light Retail and Dispensing; returns as branch £300, could be doubled; valuation about £200.

LONDON, W.—Light Retail, Dispensing, and Prescribing; all cash; returns £1,000; price £475.

SURREY.—Unopposed good-class Retail; returns, including appointment worth £65 per annum, £1 200; Gilboy's agency; price £800.

MANCHESTER.—General Mixed Retail, Oils, &c.; returns £800; price £350.

SOMERSET (Seaside).—Returns £900; good-class Retail; no Oils or heavy trade; price £700.

CORNWALL.—Unopposed Retail; returns £450; price £250.

MESSRS. BERDOE & CO.

CHEMISTS' TRANSFER AGENTS & VALUERS,

30 JEWRY STREET, ALDGATE, E.C.

Established 1870.

NO CHARGE TO PURCHASERS

MESSRS. BERDOE & CO. have for Transfer:—

RAMSGATE.—We call the special attention of buyers to this business; returning £2,400; for sale by Tender; the *upset* price of which is only £600 (see special advt.)

LONDON, S.E.—Same hands 14 years; returns £700 by manager; low rent; long lease; price £500; £100 can remain.

LONDON, S.W.—Old established; light Retail and Dispensing; returns £1,100; net profit £400; good house; garden; price £800.

LONDON, N.W.—Select Retail Dispensing; returns £800; selling through illness; handsome premises; price £600.

WILTS.—Good class Retail and Dispensing business; returns £1,200; good house; large garden; price £1,000; or offer.

CHESHIRE.—Retail and Dispensing; same hands 20 years; returns £1,000; net profit £325; price £550; introduction.

MIDLANDS.—Retail Dispensing and Prescribing; returns £860; by manager; rent £35; owner retiring; price £575.

SURREY.—Retail, Dispensing and Prescribing; returns £12 weekly; net profit £250; good house and garden; price £400.

GLOUCESTERSHIRE.—Village trade; returns £700; rent £28; good house; modern shop; price £450; or valuation.

NORFOLK.—Unopposed; Retail and Prescribing; returns £500; rent £16; good house and garden; price £350; or offer.

KENT.—Market Town; old established; Retail, Dispensing and Prescribing; returns £700; large house; price £500.

HANTS.—£60 will purchase a Branch business near Southampton; returns until recently £6 weekly.

Terms for Sale and Valuation on application.

Messrs. Berdoe & Co., 30 Jewry St., Aldgate, London, E.C.

Mr. G. B. CROCKER,

Trade Valuer, Transfer Agent, & Accountant,

15 WALBROOK, E.C.

SUSSEX.—Good-class Dispensing and Light Retail; old-established; returns £700 at full prices; price £500.

WEST OF ENGLAND.—Good-class Dispensing; returns £600; price £550; handsome pharmacy and exceptional good residence.

SOUTH WEST.—Retail and Dispensing; returns £1,100; price £850; nett profit over £400; worth attention.

EASTERN COUNTIES.—Light Retail and Dispensing in good position of busy town; returns £500; price £450.

SOUTH OF ENGLAND (SEASIDE).—Returns nearly £1,000; good house and garden; moderate rent; price £800, or small premium and valuation; worth immediate attention.

LONDON, W.—Good-class Retail and Dispensing; returns £800; nett profit £300, after paying all expenses; price £600.

LONDON (Near).—Retail and Dispensing; returns £830; price £700; nett profit over £300.

LONDON, N.—Newly-opened pharmacy, as branch; doing well by junior assistant; price £350.

Valuations for Probate or Transfer conducted in any part of the United Kingdom. Terms on application.

BUSINESSES FOR DISPOSAL.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

TO be sold, immediately, through death of Principal, a very old-established Chemist and Druggist's Business in the best part of the fashionable watering-place, Tenby (South Wales). For particulars, apply to Robert Lock, Solicitor, Tenby.

OLD-ESTABLISHED Chemist's Business for Disposal; corner shop; rent nominal; fair amount of counter prescribing; 50 per cent. profit on returns; can show books to intending purchaser; owner going abroad. Apply to D. R., care of Currie & Hutchinson, Northumberland Court, Newcastle-on-Tyne.

FOR immediate disposal, genuine Light Retail and Dispensing Business; shop handsomely fitted and well stocked; pleasant situation, neighbourhood increasing; good opening for Dentist; returns average about £10 weekly; rent £45, long lease; price £500, or reasonable offer. Apply for further particulars to C. D., 13 Maida Hill West, W.

50 MILES from London: Mixed Business with Wine and Spirit Agency; returns about £600; central position; population of immediate neighbourhood over 5,000; full prices; good shop, warehouse and House, with nice garden; no heavy trade; rent £22; price £275 cash. Apply, "Cortex," care of Evans, Lescher & Webb, 60 Bartholomew Close, London.

BUSINESSES FOR DISPOSAL—Continued.

FOR immediate disposal, a first-class Mixed Business; returns £400 good position; well stocked and neat fittings; price £200; satisfactory reasons given for leaving; a good opportunity for an energetic man. Apply, J. H. Green, 8 Princes Street, Bishop Auckland.

£85 CASH.—Good opportunity for beginner, a small Business for immediate disposal in suburb of a large Midland town; growing neighbourhood; shop nicely fitted and stocked; rent £20. "Sydney," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LONDON, N.—Business for sale, or Partnership entertained; shop large, well fitted with fair stock; owing to illness and neglect, the returns are at present small, but capable of increase by close attention. Full particulars on application to "Statim," Ryton Lodge, Beaconsfield Road, New Southgate, N. No Agents.

URGENT.—Proprietor's other engagements compel immediate sale of very old-established Light Retail; good-class country town; price, valuation of stock and fixtures; a bargain to beginner; double fronted shop, nicely fitted; rent low; ample scope for large Mixed trade; hours easy; no Sunday work. "Medicus," 1 Bradford Street, Shrewsbury.

RETURNS £924.—Thriving manufacturing town (Midlands), best corner position, old-established, with agricultural connection; unlimited scope for increase; good house; low rental; net profits under management exceed £200; price, as vendor is ordered abroad, £450. Apply, "Taraxacum," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

IMMEDIATELY.—Obliging and industrious Junior or Turnover for retail, dispensing, and photographic dealer's business or branch. Trustworthy and of good address; tooth extractor and good salesman preferred; state age, height, experience, and salary (outdoors), enclosing photo and refereaces to "Pharmacy," 67 Freeman Street, Grimsby. Also outdoor apprentice. Personal applications preferred.

HAMPSHIRE.—First-class small but highly remunerative country agricultural business, with stationery, Gilboy's wine, and other profitable agencies, in a district bordering on the New Forest, surrounded, by the seats of county families; in hands of present proprietor nearly half-a-century; capable of considerable extension; no dentist in the town, and no other chemist within a radius of six miles; price to an *immediate* purchaser, about £1,000; lease granted or premises would be sold; the fullest investigation solicited; no agents. Address in first instance, Haydon, Fordingbridge.

APPRENTICESHIP.

WANTED, to place a Youth who has passed the Preliminary with a Chemist in London, W. preferred, either as an outdoor Apprentice or Pupil. Write, stating particulars, to "Omega," care of Messrs. J. Radmall & Sons, 2 Bishopsgate Street Without.

APPRENTICE (outdoor).—A vacancy occurs in an old established Family and Dispensing Chemist's for a gentlemanly, well-educated youth about 16; small premium required, which will be returned as salary during term; every opportunity for acquiring a thorough knowledge of the business. Address, Manager, F. C. Marks, Chemist, Wantage, Berkshire.

SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

WHOLESALE.—Wanted a competent men to take charge of dry counter. Apply, Philip Harris & Co., Wholesale Chemists, Birmingham.

THOMPSON, Chemist, Putney, is in immediate want of a good smart Counterman; age about 22; qualified preferred; salary according to services rendered.

MR. S. SMITH, 6 Shaftesbury Terrace, Ashley Road, Bristol, Registered Chemist, Manager during absence, illness, or branch previous to disposal; distance immaterial.

MANAGER.—Wanted immediately, a Qualified Manager (single); Indoors; salary about £60. Apply personally at Messrs. Orridge & Co.'s Offices, 32 Ludgate Hill, London, E.C.

WANTED, at once, Junior Dispenser in private surgery; must be quick and accurate; salary £50 and lodging; no board. Write, stating references, &c., to R., 115 High Street, Croydon.

WANTED, an Assistant; one having experience of outting drug store trade. State age, experience, and salary (outdoors). Apply in first instance to A. B., care of Mr. Lester, Chemist, Nuneaton.

WANTED, early in February; a Junior or Turnover would be treated with; for a small town; good opportunity for improvement. State usual particulars to W. Banbury, The Pharmacy, Dursley.

WANTED immediately, for good-class Dispensing Business, an Assistant; aged about 22; must have excellent reference. Apply, A. H. Ellitborne, Chemist, 8 York Place, Ball's Road, Birkenhead.

WANTED by the first week in February, in a Dispensing Business, a Junior Assistant; must be well up in Dispensing. Apply, stating age, salary, &c., to George W. Shrubsole, City Pharmacy, Chester.

TRAVELLER wanted by a firm of Wholesale Chemists; only those experienced and having a connection need apply. Address "Lancashire," Editor of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

COMPETENT Assistant, well accustomed to Mixed country business. Apply, with usual particulars, stating salary required (indoors), and enclosing photo to Arthur Carlton, Chemist and Druggist, Peterborough.

A LARGE manufactory of Insect Powder in Dalmetia wants Agents in the U.S. and the English Colonies. Please apply to B. P., care of the Editor of the CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

WANTED, Junior or Improver for about 3 months (indoors) in good-class Retail; time for study. Apply, with full particulars, enclosing photo if possible, and state salary, to Oldfield & Son, Pier Road, Erith, Kent.

ABOUT 10 days' time; an Assistant, aged about 23 (qualified preferred); comfortable home. Enclose photo, references, and state salary required, Mason, Chemist, 2 Market Place, King's Road, Parson's Green, S.W.

ASSISTANT wanted immediately; aged about 21; must be active and of good address. Applicants to state age, height, experience, references and salary required, enclosing photo if possible, to Mr. Bathe, Chemist, Torquay.

YOUTH wanted immediately in Patent Medicine Department of London Wholesale House; aged about 15; undeniable character; every opportunity for rising. Apply T., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

IMMEDIATELY; good Junior Assistant; one able to manage small branch and extract teeth preferred; comfortable home offered. Apply, with full particulars, enclosing carte (to be returned), Beech, 352 Monument Road, Birmingham.

HOMŒOPATHIC (outdoor) Assistant required by a Pharmaceutical Chemist; must be gentlemanly and well up in Homœopathy. State salary, also references, to "Pharmacist," Office of the CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, an Assistant for a medium-class country business; comfortable situation; in or out door; time given for study if required. State age, height, experience, salary required, &c., to J. Markham, Chemist, Market Place, Reigate, Surrey.

WANTED, an energetic married Assistant, without family; accustomed to Prescribe and Extract teeth; must be a neat and accurate Dispenser; unfurnished apartments with gas provided. Apply (personally preferred), to A. J. Brown, Chemist, 55 Trafalgar Road, Greenwich, S.E.

AT once; a competent Assistant of gentlemanly appearance and address; about 25, with Minor qualification; accustomed to good Dispensing and Light Retail. State age, salary, height, and references, enclosing carte (to be returned), to J. J. Burnett, Chemist, Bishopston, Bristol.

SURGICAL Appliances, Druggists' Sundries, Wholesale and Retail.—Wanted, an outdoor Assistant of gentlemanly appearance; must have had some experience. Apply by letter, stating what experience, age, and salary required to A. B. C., care of G. N. Read, Son & Co., 49 Queen Victoria Street, E.C.

AN Assistant; married; aged about 30; with a knowledge of Postal duties, and well up in Mechanical Dentistry; capable of taking full charge; must be steady and obliging; applications not answered in 6 days respectfully declined with thanks. Full particulars to J. Young, Douglas, Isle of Man.

WANTED, a young man who has a knowledge of the Surgical Instrument trade; one preferred who also knows something of the Drug business; must be able to give good reference. Apply, stating age, experience, salary required, &c. to "Instruments," care of W. & H. Hutchinson, Matilda Street, Sheffield.

A STEADY business-like Junior for good-class suburban Business; one only kept; good references indispensable; one able to extract preferred; comfortable home. State age, height, experience, salary, when disengaged, and enclose photo to H. J., Messrs. Hearon, Squire & Francis, 38 Southwark Street, London, S.E.

TRAVELLER required by a well-established firm for town and country to appoint Chemists as Agents for a specialité in tea packets; must have a connection among them; preference given to one previously holding a similar appointment. Write fully, stating age, experience, salary, &c., required, to U. T., Messrs. Deacon's, Leadenhall Street, E.C.

IMMEDIATELY.—Board and Residence offered in exchange for services about three days a week; convenient for South London Schools of Pharmacy; must be gentlemanly, and accustomed to good-class dispensing business, and references bear strictest investigation. Personal application preferred, to S. Grover, 3 Croxted Road, West Dulwich.

DISPENSER, qualified, wanted for a steadily growing drug company in Manchester having exceptional specialities; the sale of one of them reached over 1,000 during the last six months. He must be prepared to invest at least £300, in return for which he may join the directorate. Address, giving references, &c., to P. P., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, a competent Assistant for the Wholesale Drug trade. Apply to 2 Bouverie Street, Fleet Street, London

WANTED, at once, a pushing young man as Assistant. State references and salary (outdoor) to Carter, Chemist, Woolwich.

JUNIOR, indoors, for cash business. Apply, stating full particulars, to X., Messrs. Hodgkinson & Co., 198 Upper Whitecross Street, E.C.

WANTED, Traveller, for Manchester and district, with connection amongst Chemists and Druggists. Apply by letter only, to T. G., 1 and 2 Australian Avenue, E.C.

WANTED immediately, smart Counterman, of good appearance; qualified; good experience; aged about 23; indoors; apply personally. Thompson, Pharmaceutical Chemist, Putney, S.W.

AN Assistant of good business habits; age about 22; able to prescribe and extract teeth preferred. Apply, with full particulars of experience and references, to J. W. Mooro 7 Market Square, Hanley.

WHOLESALE.—Clerk required, about 18 to 20 years of age, accustomed to bookkeeping. Apply, stating age, salary, and experience to "Ledger," care of H Good & Son, 12 Moorgate Street, E.C.

WANTED, at once, Junior Assistant for Light Retail, and to help in Surgery; age about 24. Apply, stating age, references, and salary required to M. H. King, The Pharmacy, High Street, Southend-on-Sea.

WANTED at once, a gentlemanly Assistant to manage Branch; must be active, experienced, and thoroughly trustworthy. Write full particulars, qualifications, salary, &c., to J. Bloomer, High Street, Brierley Hill.

ACTIVE JUNIOR; age about 20; of good address and references; indoors. Full particulars, and class of experience, salary required, with photo (to be returned), to Gibson, Chemist, Post Office, London St., Reading.

WANTED, an indoor Assistant: good Dispenser, and one able to extract teeth preferred; also an Improver. Apply, stating full particulars, with references, to A. W. Dawes, Chemist, Old London Road, Halton, Hastings.

TO Dispensers.—Wanted, at once, a Dispenser (outdoors); must be qualified, and under 35 years of age; no Sunday work. Apply by letter, stating experience and salary required, to L. A. B., 136 Queen Victoria Street, E.C.

WANTED, a qualified Assistant as Manager; single; indoors; must be thoroughly reliable, and able to extract teeth preferred; good salary to a suitable man. State age, salary expected, and full particulars, with photo, to Oliver & Co., Chemists, 176 King Street, Great Yarmouth.

JUNIOR Assistant wanted (indoors), not under 20 years of age, for light country business; time allowed for study; must be able to prescribe and dispense. Apply, with reference (enclosing carte), stating age, salary required, &c., to W. Jacobs, Medical Hall, Guildford, Surrey.

WANTED, immediately, a competent Welsh Assistant for a branch business; references must be unexceptionable; progressive salary given to suitable man. State age and experience to "Glamorgan," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

IMMEDIATELY, by W. D. Joce, Chemist and Spirit Merchant Bideford, as indoor Assistant, a young man about 20, of good address and with high references; must be able to dispense, and be willing to take an active part in Mixed Country trade; liberal progressive salary.

JESSE WILLIAMS & CO., Chemists, Park Hall Buildings, Cardiff, require a smart Junior Assistant; he must understand his business and be well recommended by his late employer. In writing please give full particulars, age, height, experience, salary, indoor or outdoor, &c.

HAMILTON, LONG & CO., State Apothecaries and Chemists to the Queen, 3 Lower Sackville Street, Dublin, have a vacancy for a Senior Assistant to take charge of the Family and Retail counter. Apply, enclosing carte, stating age, height, references, and salary required (indoors), &c.

WANTED immediately, Junior Assistant; indoors; accustomed to good mixed general trade; must be a neat dispenser, reliable and obliging. Apply, enclosing carte (to be returned), stating experience and salary required, to R. H. Kearnes, Bilston, Staffordshire. Easy hours and no Sunday duty.

WANTED, immediately, an Assistant, outdoor; hours of business are from 9 A.M. to 9.15 P.M., except Saturdays to 10.30 P.M., and one evening a week to 5 P.M. Apply, stating when disengaged, age, height, references, and salary required, to D. P. Roberts, Drug and Chemical Store, North End, Croydon.

JUNIOR Assistant (outdoors); Minor qualification; accustomed to good-class Retail trade; one only kept; hours easy; Wednesday half-holiday; state salary, with usual particulars; to an active and obliging young man this is a good situation. J. B. Emerson, 8 Church Street, West Hartlepool.

WANTED immediately, a Junior Assistant (aged about 20 or 21) who has been brought up in a good country business; must be sharp and of agreeable manners, and whose character will bear full investigation. Apply, enclosing carte (to be returned), to D. Prosser, Sheerness, naming salary and references.

MINERAL and Aërated Water Factory; Managing Foreman wanted, thoroughly capable of taking full charge; applicants must have a thorough knowledge of all the details of manufacture, and be able to keep accounts. State full particulars of previous experience, age, and remuneration expected, to Z. N., Messrs. Street, 30 Cornhill.

WANTED early in February, near town, an energetic Assistant of varied experience in Dispensing, Prescribing, and Light Retail, competent to manage in absence of principal; every encouragement given to an industrious man possessing business tact; if qualified and able to extract teeth preferred; outdoors; salary and commission. Address, S. S., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SITUATIONS WANTED.

MAJOR Student requires part time. A., 147 High Street, Harborne, Birmingham.

ASSISTANT; aged 24; tall; outdoors. G. Michell, 6 Granville Street, Bideford.

BRANCH Manager or Locum-Tenens; aged 30; qualified. W. J. R., 11 Abbey Road, Torquay.

AS Junior; 5 years' experience; aged 20; height 5 ft. 10½ in. 110 High Street, Mexborough.

TEMPORARY engagement wanted; aged 28; qualified. B., 27 Rutland Road, Bedford.

LONDON; aged 46; unmarried; part time for partial board. "Argent," 6 Giltspur Street.

AS Junior; aged 21; 6 years' experience; good references. A. Rogers, 3 St. James' Street, King's Lynn.

QUALIFIED; aged 24; West-end experience. "Chemist," 11 Ryecroft Road, Higher Green Lewisham, S.E.

TEMPORARY; good references; disengaged; terms moderate. W., 52 Alton Road, Mildmay Park, N.

MANAGER (Senior), or Dispenser; 31; qualified; testimonials. "Theta," 43 Queen's Road, Hastings.

ASSISTANT; aged 24; height 5 ft. 10½ in.; disengaged; London preferred. X., 30 Salisbury Road, Cardiff.

AS Manager or Assistant; with or without view to succession; qualified. "Alpha," 5 Market Place, Spalding.

MANAGER or Assistant; temporary or otherwise; in or out doors; qualified. L., Mr. Morgan, Chemist, Hereford.

ASSISTANT or Manage Branch; single; unqualified; indoors; permanency preferred. Lumbus, Aston, Nantwich.

ASSISTANT; mixed trade; 7 years' experience; aged 24; highest references. R. H. Turton, 2 Eldon Street, Sheffield.

BRANCH Manager, Senior or Dispenser; disengaged; Minor; aged 27; out-doors. A. J. E., Zetland House, Newmarket.

ASSISTANT; aged 27; height 5 ft. 5 in.; town or country; good experience. D., 14 Princes Square, Kennington, S.E.

AS Assistant or Clerk (outdoors); aged 32; good experience and references; fluent French. D., Rosebank Cottage, Redhill.

LOCUM-TENENS during absence; long experienced; gentlemanly address; moderate terms. "Ph. Ch.," 39 Powis Square, W.

ASSISTANT, Light Retail and Dispensing, or Dispenser to Surgeon; 6 years' experience. "Beta," 47 High Street, Newport, I.W.

OUTDOOR Assistant; competent; 8½ years in present situation; 32; tall; good references. "Chemicus," 42 Middleton Street, E.C.

AS Traveller or Assistant in Wholesale warehouse; dry counter; 4 years' experience. H. Smith, Sunny Bank, Market Harborough.

DISPENSER or otherwise; aged 29; qualified; married; last situation with firm of Surgeons. "Dispenser," 18 Pomona Place, Fulham.

JUNIOR; indoors; aged 21; height 5 ft. 10 in.; 5 years' experience; excellent references. T. Fodea, Blakelands, Perry Barr, Birmingham.

ASSISTANT or Manager, branch; outdoors; aged 27; qualified; North preferred; good references. "Chemist," 15 Richmond Road, Bradford.

MANAGER or Assistant; aged 39; married; Minor qualification; 20 years' experience; good references. "Alpha," 45 Adelaide Street, Southport.

ASSISTANT or Laboratory in good house; Major qualification; experienced Dispenser; good references. E. Thorp, 3 Keldholme Villas, Harrogate.

AS Dispenser or Assistant; unqualified; 12 years' good experience; height 5 feet 9 inches. "Chemicus," 5 Charles Street, Rutland Gate, S.W.

WHOLESALE.—Manager, Warehouseman, or Traveller; 20 years' general experience in a Manufacturing firm. L. E., 74 Rushmore Road, Clapton, E.

TEMPORARY or Locum-Tenens; Major; highest references; disengaged. M. F., Mr. Bickle, 3 Royal Victoria Buildings, St. Leonard's-on-Sea.

AS Temporary Manager; many years' experience in London and country; first-class references. "Chemist," 54 Weltje Road, Hammersmith, London.

LONDON.—Evening employment with Chemist or Dispenser to Surgeon; near Wills' College; 8 years' experience. Frank Portlock, Wotton-under-Edge.

IMPROVER; 3 years' experience; moderate salary to commence; no Sunday duty; aged 22; height 5 feet 4½; abstainer; good reference. "Delta," Needham Bros., Buxton Road, Huddersfield.

ASSISTANT; aged 23; height 5 ft. 11 in.; good Dispenser and Prescriber; steady, reliable, experienced (8 years); highest references. "Chemicus," Kelly's, Vigo Street, Regent Street, W.

YOUNG Scotchman wishes engagement abroad; Africa or India preferred; 10 years' experience; good references as to character and ability. Fleming, 34 Cumberland Street, Edinburgh.

WANTED, situation as Assistant in country town as soon as possible; good Dispenser and Prescriber, having been with medical man 18 months; in or outdoor; good references. Apply, W. H., Oakfield House, Darby End, Dudley.

A QUALIFIED Chemist desires position as Manager, with view to purchase by instalments. Full particulars as to returns, rent, population, &c., to "Disengaged," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WHOLESALE.—Manager steam laboratory; well up in non-official pharmaceutical and proprietary preparations; 22 years in first-class houses—America, London, and Edinburgh; Scotch or Irish house preferred. Defoe, 36 Cambridge Avenue, Edinburgh.

TO Wholesale Druggists.—Barron, Harveys & Co. wish to recommend one of the managers of the late firm of Barron, Squire & Co., as Warehouseman Sample Man, or any position of trust; 20 years' experience; moderate salary. J. Lawrance, 9 Albion Road, Lewisham.

MISCELLANEOUS.

PERSONS wishing to Purchase or Sell their Businesses will do well to communicate with Messrs. Fowler & Miller, Chemists' Transfer Agency for the North of England, 60 Fawcett Street, Sunderland.

TO Chemists and large Buyers.—The receipts of Perfumery (high class) to be disposed of, and practical demonstration as to blending and purchase of raw material, by a late manufacturer. Z., 297, Messrs. Deacon's, 154 Leadenhall Street, E.C.

50 £5 shares, £3 paid, in Lamplough (Limited), proprietors of Pyretic Saline and Manufacturing Chemists. Established 1707. Company has paid four dividends of 10 per cent.; next just due, same rate; price 60*s.* each; will divide. Letters, M., 77 Belsize Road, N.W.

DUTCH EMBROCATION for Hooping Cough. Cure guaranteed within three weeks. Price, 1*s.* 1½*d.* and 1*s.* 9*d.* per Bottle. Wholesale, Messrs. Barclay & Sons and Newbery & Sons. Any Chemist or Medicine Vendor wishing to try its efficacy will receive a bottle free of charge by applying to the Patentee, P. F. Vandersteenstraaten, "The Bird in Hand," Braintree, Essex.

A FORTUNE may be made by an enterprising Chemist.—For Sale, all Rights and Titles of an old Ointment Trade, which has been used for many years; has been recommended by the Medical Profession. Also an Ointment for all kinds of Animals. Testimonials can be sent shewing the efficacy of both Ointments. The Globe Ointment has shown testimonials of those that have been cured after they have failed to get cured in hospitals. For further particulars apply E. P. Chegwidden, Castle Cottage, Wroughton, Swindon, Wilts.

INFORMATION WANTED.

PRACTICAL formula for making the Arsenic-Sulphur Sheep Dip, similar to Cooper's; also full details required of the necessary plant, dimensions of same, &c.; it is required to make batches of 5 cwt. to a ton. Information wanted only from a practical man who is engaged in the making of such sheep dip. In giving the formula full particulars of the substances used must be given, and also ones to decrease or increase the percentage of arsenic. Full details must also be given of the mode of operating, drying, powdering, and sifting. For the above information we are prepared to give from £2 10*s.* to £10, according to the value of the information and details given. Send sample and outline of what can be supplied. 50/100, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

AN APOLOGY.

To Mr. THOMAS BEECHAM,
Proprietor "Beecham's Pills,"
St. Helens, Lancashire.

SIR,—I regret and apologise for having sold pills as "*Beecham's Pills*," they not being manufactured by you, and I undertake not to do so again.

You are at liberty to publish this apology in THE CHEMIST AND DRUGGIST, and I undertake to pay the cost of such publication and your solicitors' costs.

Dated this 17th of January, 1890.

Yours, &c.,
(Signed) HENRY HIGGOTT,
Chemist and Druggist.

Market Place, Great Bridge, near Tipton.

ACADEMISCH GEBILDETER

MEDIZINAL-DROGIST,

23 Jahre alt, der Ostern seine Dienstzeit als Einjährig-Freiwilliger beendigt, sucht, gestützt auf sehr gute Zeugnisse, zu Anfang April Stellung in einem Drogen- und Chemicaliengeschäfte (*en gros*) Londons (am liebsten bei einem Deutschen). Offerten unter

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A PRACTICAL MANUAL OF VENEREAL AND GENERATIVE DISEASES:

Including SPERMATORRHŒA, PROSTATORRHŒA, IMPOTENCE, and STERILITY in Both Sexes.

By M. K. HARGREAVES, M.D.

Assistant Physician to St. John's Hospital for Diseases of the Skin.

LONDON: R. KIMPTON, 162 WARDOUR STREET, LONDON, W.

Printed by SPOTTISWOODE & Co., New-street Square; and Published at the Office, 42 Cannon Street, in the City of London.—*Jan.* 25, 1890.

the pictures in the Royal Academy put together since its commencement. Sir John Millais took a considerable interest in the reproduction of 'Bubbles,' and told me he thought it was a wonderfully fine specimen of chromo-lithographic art. I had a most trifling alteration in the shading done on his suggestion, at a cost of 200*l.*, after the proofs had been produced, so that it should be as near perfection as possible. Thirty years ago those small coloured handbills of 'Bubbles' which we give away could not have been bought for a shilling apiece. Some of the skin doctors whose opinions we have advertised on sheets by the million have protested after their fame has been made; but they have been

GLAD ENOUGH OF THE PUBLICITY

in their earlier days."

"And the actresses?"—"Oh, they are always very amiable. They don't mind how much they are advertised."

"By-the-by, is that

BEAUTY SHOW

coming off?"—"No; 'the mothers and wives of England' were so strong in their protests, thinking it would be associated with immorality, that we have had to abandon it in deference to their opinions. It cost us 150*l.* to cancel the arrangements entered into for the hall, &c."

Finally, Mr. Barratt gave us some idea of what he gets for the 100,000*l.* a year or more which he spends. Artists, sculptors, poets, doctors, scientists, actors, musicians, printers, and lithographers all assist him in his business; every newspaper and magazine offers him its space; his enamelled iron plates skirt every railroad in the British Isles, are the only external decorations of the elevated railway in New York, are scattered over America and Australia, appear alongside of all the railroads in India, and greet the traveller all the way from Cape Town to the Diamond Fields. An English consul reports to his Government that he has found their advertisements and their soap in the inmost recesses of China; Dr. Nansen says he carried a tablet with him all through Greenland, and expects to find one of their placards on the North Pole when he gets there. Another correspondent reports that he found a deserted raft on one of the rivers of Canada, a hundred miles from civilisation, with no cargo whatever except a solitary cake of Pears' soap. The voyager meets with the familiar announcement emblazoned on the cliffs of New Zealand as he coasts that distant island, and British soldiers in the Soudan met with it on the rocks even there. Mr. Barratt values the goodwill of chemists, as is evidenced by his politeness in giving us for them so much of his time and experience. We hope this personal introduction to him will help to enhance their pleasure in selling the article which he has made so famous.

THE PEARS' CENTENARY.

BARRATT PRESS BANQUET.

Reprinted from "THE CHEMIST AND DRUGGIST" of November 9, 1889.

ON Wednesday, November 6, the centenary year of the firm of Messrs. A. & F. Pears was worthily celebrated by a splendid banquet given in their honour principally by the proprietors of the newspapers of the English-speaking world, and advantage was taken of the occasion to present to Mr. T. J. Barratt, the partner in the firm who has conducted their colossal advertising, with a substantial testimonial in recognition of the enterprise, ability, and pluck which he has brought to bear on his great trade. The scene of the banquet was the Whitehall room of the Hotel Métropole. Sir Algernon Borthwick, Bart., M.P., the proprietor of the *Morning Post*, occupied the chair, and the company, which numbered in all nearly two hundred, included representatives of every kind and class of journal. Many of the most eminent representatives of London and provincial journalism were present, and others delegated by American and Australian papers. All sides of Parliament were represented, as, besides the chairman, Messrs. Ashmead-Bartlett, Frank Lockwood, Q.C., T. P. O'Connor, and J. W. Maclure were at the tables. Mr. T. J. Barratt and Mr. Andrew Pears occupied places of honour, the former at the right of the chairman. Colonel North appeared for the financial world, and Sheriff Harris and Under-sheriff Beard officially represented the City. The toasts were few, and the speeches were crisp and interesting. The chairman proposed "The Queen" in twenty loyal words, and next Mr. Charles Cross gave "The Houses of Parliament." Mr. Lockwood, Mr. Maclure, and Mr. T. P. O'Connor, in responding, contributed amusing speeches, but neither made any attempt to educate his audience politically. The burden of replying to this toast was to have devolved on Mr. Ashmead-Bartlett, but that statesman only arrived rather later in the evening. The toast of

"MR. T. J. BARRATT"



THE SILVER DESSERT SERVICE.

came next, and this was offered by the chairman in a very felicitous speech, which was sympathetically applauded. Sir A. Borthwick said he would not, he supposed, be expected to give them an article on the history of soap. He expected it was not in use before the Fall, but that when man was condemned to labour he found it necessary to cleanse himself. He had seen the Egyptians use Nile mud as soap, and, though that was not so attractive and agreeable as the soap made by Messrs. Pears, it seemed to be effective. It was said that the Romans learned the art of making both hard and soft soap from the Germans, and he believed it was a fact that at the present day the Latin races were still behind those of Tentonic origin in regard to the quantity of soap used. Perhaps we need it more. Anyway, it is to-day an article of vast commerce. Many firms are engaged in its manufacture, but they were just then concerned with one in particular. They were celebrating the hundredth anniversary of the establishment of the firm of Messrs. Pears. In that room were assembled representatives of British, American, and colonial newspapers, and they were there to congratulate this great firm on their success, and to compliment them on the means by which they had brought it about. A hundred years ago the founder of the house had a little shop, and did a small business; but he had a true English spirit, and he set to work to do his work thoroughly. In 1809 they had a great lawsuit, which established the right of Messrs. Pears to make transparent soap, and they had made it ever since. About twenty-five years ago their guest that evening had come into the firm, and had conceived the idea of promoting the business by enlisting the services of newspapers and art on a large scale. He employed R.A.'s, and placed their pictures on the walls, and surely it was a pleasure for the public to see them. In these days of Socialism, when the idea was spread about that the great capitalist stored up the money he made in sacks, the career of this firm was worth noting From a business with one or two assistants they had become a great manufacturing firm, employing hundreds of hands, and, as they made more profits, rolling up more enterprise; giving business to newspapers, to lithographers, to paper-mills, to printers, and to hill-stickers. This capital making and using was like the processes of nature raising water to the clouds and spreading it on the earth again in fertilising showers. In cases like this the increase of wealth meant greater happiness to a greater number. The money had been well earned and well spent. They met, then, to congratulate the firm on their success, and Mr. Barratt, who was held in universal esteem, on the extraordinary development he had given to the business, and Mr. Barratt might well be proud to receive from the Press of the world that handsome testimonial, that beautiful specimen of the silversmith's art which he had now the honour to present to him. It was a work of art worthy of the man and worthy of the occasion. It was a source of great pride to him to have been selected to present this testimonial.

The gift, which it was understood was of the value of 1,000*l.*, was a solid silver dessert service, consisting of two large jardinières for fruit or flowers, and four small dishes for fruit. Each jardinière takes the form of an antique bowl resting on a hell-shaped stem, which rises from the centre of a massive silver plateau, supported by richly-chased scroll feet. The body of the bowl is beautifully decorated in high-class repoussé style after the Renaissance period, and has on the obverse and reverse heraldic shields with suitable borders, and bearing respectively the arms of the recipient and that of America, all enamelled in proper colours. Springing from the ends of the bowl are two exceedingly graceful scroll-work handles, in the interlacing of which are introduced masks and other ornaments appropriate to the design. Reclining on the plateau are two groups of classical figures, emblematic of Industry and Commerce, with their attendant genii and various attributes. On front of plateau is placed a classic shield surrounded by bay leaves, and bearing the following inscription:—

PRESENTED TO
T. J. BARRATT, ESQ.
1889.

The shield on the opposite side is similar in form, and has the flags of Great Britain and of the different colonies enamelled in proper colours.

This beautiful service is modelled in the highest style of the silversmith's art, and had been designed and manufactured by the Goldsmiths and Silversmiths' Company, 112 Regent Street, W.

With the service was presented a volume containing the names of 1,700 newspapers which had contributed.

Mr. Barratt, who was received with long-continued cheering, said perhaps they would hardly give an advertiser due credit for modesty, but he claimed that as one of his most marked traits, and he wanted to refer to his firm and himself with as little egotism as possible. All good Americans trace their ancestry to the *Mayflower*, which must have been a veritable Noah's Ark. Englishmen went to the Heralds' College, but they were not all able to trace their ancestry back to the blue blood of the Normans. But their firm had a record of 100 years, and dated back to a small barber's shop, and the originator of the business had conducted it on the same principles of integrity which those who came after him had endeavoured to emulate. During the twenty-five years he had been associated with his partner, Mr. Andrew Pears, they had never had one ill word, nothing but the greatest harmony had prevailed in their councils, and now when their term of partnership was nearly at an end they had agreed to renew it for another twenty-one years. Their success was very largely due to Mr. Pears' skill as a chemist and manufacturer, for unless they supplied a perfect article no advertising skill would ever have produced satisfactory results. He was perfectly certain that if it had not been for the newspapers which those present represented they would never have been enabled to make so satisfactory a return to Somerset House Soap advertisements were to be found on the walls of the baths of Pompeii, and the manufacture might be said to be coeval with Christianity. They were constantly increasing the amount of their advertisements, and they had now attained an expenditure of more than 100,000*l.* per annum, which he thought was a fair contribution for one firm to make towards the extension of the Press of the country. It had stimulated exertion on the part of other houses, both in this country and in all parts of the world. What did they get for this 100,000*l.*? He calculated that they got a circulation of 20,000,000 per day for their advertisements; that they visited daily almost all the houses in Great Britain, America, and Australia, and their trade thus girdling the whole earth and, following the sun, their stores were practically open 24 hours a day. If they knocked at any door 365 times a year it was very odd if once in that year the person addressed did not buy a tablet of soap. That, with the best article they knew how to make, was the secret of their success, and he thanked the newspapers for the way they had aided him. It was a mistake to suppose that great advertising increased the cost of the article advertised. To-day they sold their goods more cheaply than they had ever sold them before. He thanked the donors of that handsome present most heartily, most cordially, most sincerely, it would always recall the pleasure of that evening; and he hoped the very pleasant relations he had had with the Press would long continue to mutual advantage.

The Chairman said he should call on Mr. Andrew Pears to say a few words, but he had first to make an announcement—that was that the firm had just handed him

A Cheque for 1,000 Guineas

for the Newspaper Press Fund, a fund in which he took a deep interest. This announcement was received with rounds of applause.

Mr. Andrew Pears added a short and effective speech. Mr. Brown, of the *New York Herald*, replied to the toast of "The Press," and Mr. Edmund Routledge proposed the health of the chairman, whom he described as the greatest political enemy he had on earth, for he had prevented him from representing North Kensington in Parliament. Apart from politics they were all proud of the position which Sir Algernon Borthwick had attained, and if it should ever please the Government to promote him to the House of Lords, no one would be more heartily pleased than himself.

"THE HOUSE OF PEARS."

A VOICE FROM THE TRADE.

To the Editor of "The Chemist and Druggist."

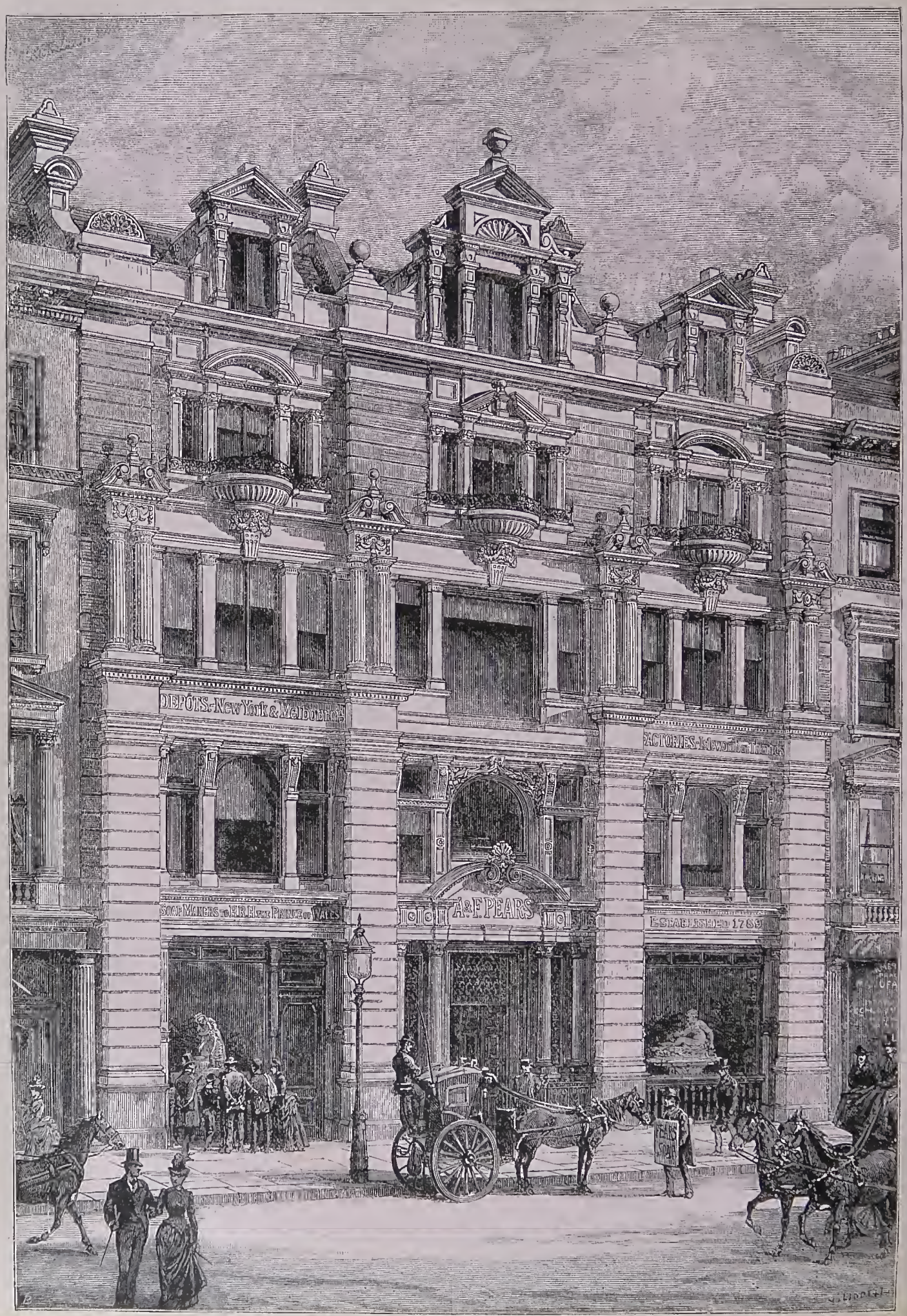
Sir,—As a retail chemist and druggist, I should like to add a line to the notice of Messrs. Pears's establishment in your last issue.

It is quite natural that a journalist should make the most of the success of so advertising a firm, but for my own part, I believe Messrs. Pears's success lies, to a considerable extent, in their uniformly just and liberal business policy in their transactions with the retail trade. I have dealt with them over twenty years, not only for their transparent, but also for the ordinary toilet soaps, which are quite worthy of their reputation. Of Messrs. Pears a retailer may buy a not very large parcel at the same rate as the large houses pay for, say, a 1,000*l.* order. Some years ago the large stores combined to boycott the firm for this, and supplied their customers with a substitute made for this purpose. This did not do, and the stores were compelled very soon to return to the genuine article.

The soaps sent out by Messrs. Pears are always good alike. They have repeatedly referred to me individuals who have sent their orders direct to the firm. They always send a reminder of the dates when payments are due, and, in short, after a rather wide business experience, I consider them a model wholesale house. I think this word rather magnanimous on my part: they have just refused me a second card of "Bubbles."

Yours obediently,

Redhill. THOMAS PADWICK.


DEPOTS-New York & Melbourne
FACTORIES-Isleworth & Berlin
SOAP MAKERS TO H.R.H. THE PRINCE OF WALES
A. & F. PEARS
ESTABLISHED 1789

THE SPECIAL ATTENTION OF THE TRADE IS INVITED TO

THOMPSON, WALTERS, HOLE & CO.'S



REVISED ILLUSTRATED

CATALOGUE

OF

DRUGGISTS' SUNDRIES,

Surgical Instruments,

CHEMISTS' SHOW CASES AND SHOP FITTINGS,

PERFUMERY, TOILET REQUISITES,

Patent Medicines & Proprietary Articles

FORWARDED POST FREE ON APPLICATION TO ANY PART OF THE WORLD.

Please remember in comparing with other lists that all our quotations are subject to 5 per cent. discount for monthly account, due the 15th of the month following that in which goods have been delivered. Also note that we pay carriage on all Country orders for Druggists' Sundries of the value of £5 and upwards, and deliver in London and the Suburbs by our own carts daily.

SPECIAL TERMS FOR EXPORT AND WHOLESALE ORDERS.

Every attention is given to Export Orders, and Indents sent through Merchants should bear our name.

Our goods give universal satisfaction, and buyers may, with confidence, favour us with a trial order, and be assured of the most satisfactory results.

THOMPSON, WALTERS, HOLE & CO., LIMITED,

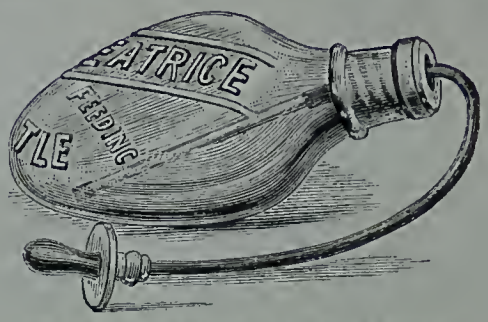
CURTAIN ROAD, LONDON, E.C.

[See following pages.

FEEDING BOTTLES.



The "BEATRICE." Full View.



The "BEATRICE" Feeding Bottle.



The "BEATRICE." Side View.

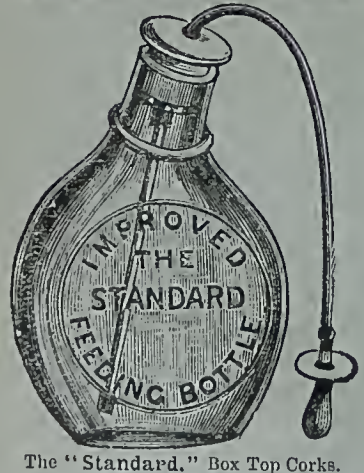
A UNIVERSAL FAVOURITE.

The "BEATRICE" 1/ Feeding Bottle combines the advantages of the straight and bent neck feeder. Its shape admits of the bottle being laid on either side without the slightest fear of leakage from the stopper, and can be thoroughly cleaned, access to every part of the bottle being easy. It has no corners or crevices, so that it is impossible for the milk to accumulate and become sour.

The "BEATRICE," white glass, straight neck, screw glass stopper complete, with best black fittings, each in handsome shouldered box in which to stand the bottle while filling .. .. per doz.	7/6
Spare Bottles, without stoppers .. .. „	2/3
Spare Fittings .. .. „	4/3



The "Standard." Glass Screw Stopper.



The "Standard." Box Top Corks.



The "TROPICAL."

THOMPSON, WALTERS, HOLE & CO.'S

"STANDARD" FEEDING BOTTLES.

CHEAPEST AND MOST SALEABLE IN THE MARKET.

644	*Green glass, box top corks*, white fittings, loose ... ... per gross	23/-
644A	„ spare bottles ... ... „	10/-
644B	Spare fittings for ditto ... ... „	14/-
645	*Green glass, box top corks*, black fittings, loose ... ... „	28/-
645A	„ spare bottles ... ... „	10/-
645B	Spare fittings for ditto ... ... „	17/-
646	*White glass, box top corks*, white fittings, loose ... ... „	27/-
646A	„ spare bottles ... ... „	14/-
647	*White glass, box top corks*, black fittings, loose ... ... „	30/-
648	*Green glass, screw glass stoppers*, white fittings, loose ... ... „	33/-
648A	„ spare bottles ... ... „	15/-
648B	Spare fittings for ditto ... ... „	21/-
649	*Green glass, screw gloss stoppers*, black fittings, loose ... ... „	36/-
649A	Spare fittings for ditto ... ... „	21/-
650	*White glass, screw glass stoppers*, white fittings, loose ... ... „	39/-
650A	Spare bottles for ditto... ... ... „	18/-
650B	Spare fittings for ditto ... ... „	21/-
651	*White glass, screw glass stoppers*, black fittings, loose ... ... „	42/-
651A	Spare bottles for ditto ... ... „	18/-
651B	Spare fittings for ditto ... ... „	24/-
652	*White glass, screw glass stoppers*, best quality, white fittings, each in handsome labelled cardboard box, with tube and bottle brushes ... ... „	69/-
653	*White glass, screw glass stoppers*, best quality, black fittings, each in handsome labelled cardboard box, with tube and bottle brushes ... ... „	72/-

For Orders of two gross and upwards, customers can have own name on Standard Bottles FREE OF EXTRA COST.

Nos. 644 *to* 651 *can be had in* 1 *doz. partitioned wooden boxes at* 2/6 *per gross extra.*

654	The "TROPICAL," Thompson, Walters, Hole & Co.'s Patented glass boat-shaped Feeder, with screw glass stopper at end for convenience in cleaning, fitted with black indiarubber teat, and bone shields, each in cardboard box large size, per doz.	8/-
655	Ditto ditto small „ „	7/-

All the above quotations are subject to 5% discount for Monthly Account.
For further particulars and illustrations, see CATALOGUE, post free on application.

THOMPSON, WALTERS, HOLE & CO., LIMITED.

TRUSSES.

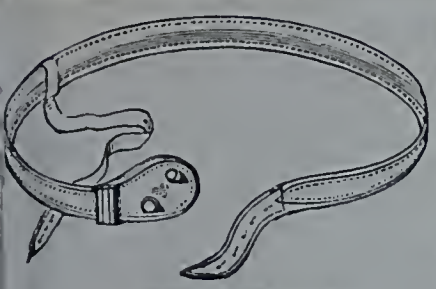


FIG. 1.—Single Circular Truss.

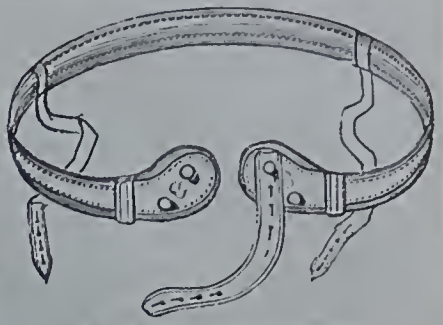


FIG. 2.—Double Circular Truss.

		Double.
For INGUINAL HERNIA, covered Basil and Moleskin.		
Figs. 1 and 2 .. .. per doz.	12/6	21/6
Salmon & Ody's Principle, covered Basil and Moleskin, Fig. 5 (made to order) „	23/0	
Salmon & Ody's Principle, covered Basil and Moleskin (Circular) .. .. „	22/0	36/0
For SCROTAL HERNIA, covered Basil, Fig. 6 „	36/0	60/0

(For all other kinds see Catalogue.)

☛ These Prices are subject to the following Discounts :—
5 per cent. on Orders of less than 1 gross.
10 „ „ 1 gross and upwards.
12½ „ „ 2 „ „

All Trusses manufactured by us are of the Best Quality, and we invite trial orders.



FIG. 5.—Salmon & Ody's Single Truss.

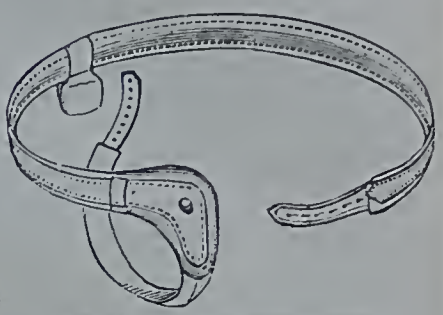
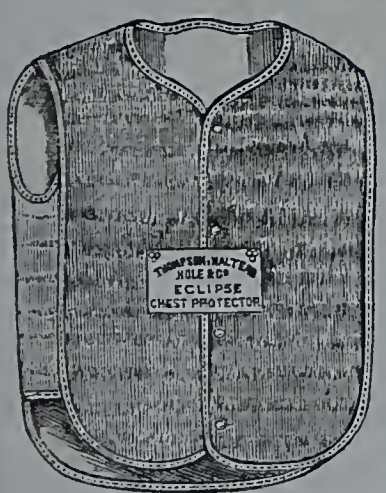


FIG. 6.—Truss for Scrotal Hernia.

CHEST PROTECTORS.

Handsome Glass Top Show Case presented with orders of £5 worth and upwards.







SCARLET OR WHITE FELT.

	No. 1	2	3	4	5	6
"ECLIPSE" (new vest-shaped pattern) .. .. per doz.	17/6	23/6	31/6	39/0	48/0	56/0

BEST.	No. 0	1	2	3	4	5	6
ECLE .. .. .. per doz.	14/0	16/6	21/6	26/6	32/0	43/0	53/0
GLE .. .. .. „	5/9	7/4	9/3	10/9	13/6	19/6	26/0

SECOND.	No. 0	1	2	3	4	5	6
DOUBLE .. . .. per doz.	11/6	14/0	18/0	22/0	26/6	35/0	44/0
SINGLE .. .. .. „	5/0	6/3	7/8	9/0	11/6	15/0	20/0

CHAMOIS AND FLANNEL.

	No. 0	1	2	3	4	5
GLE .. .. per doz.	5/3	8/2	11/0	12/10	15/3	19/0

	No. 1	2	3	4	5
DOUBLE .. .. per doz.	19/0	23/9	29/6	36/0	46/0

SPECIAL QUOTATION FOR QUANTITIES.

RESPIRATORS.

Mahogany Glass Show Cases presented with First Orders of not less than £2 assorted.

THOMPSON, WALTERS, HOLE & CO.'S NON-CORRODIBLE METALLIC (OVAL) VELVET PAD—

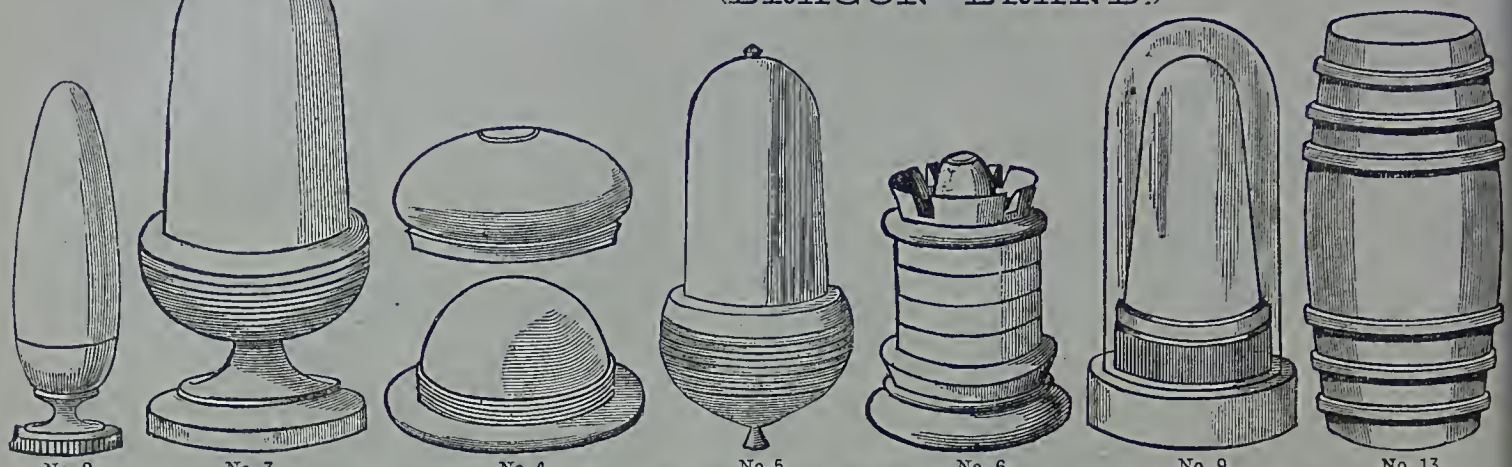
il each, 1/0 .. .. per doz. 7/6	Retail each, 2/6 .. .. per doz. 19/0	Retail each, 5/0 .. .. per doz. 42/0
„ 1/6 .. .. „ 11/6	„ „ 3/0 .. .. „ 22/0	„ „ 6/0 .. .. „ 47/0
„ 2/0 .. .. „ 13/3	„ „ 3/6 .. .. „ 28/0	„ „ 7/0 .. .. „ 53/0

ompson, Walters, Hole & Co.'s Cork, for retailing at 1/0 each .. .. per doz. 6/0
hill's Nickel-Plated .. .. „ 15/0
erfection" Celluloid, with Metallic Gauze Plate .. .. „ 16/0

HOMPSON, WALTERS, HOLE & CO., LIMITED.

MENTHOL CONES.

(DRAGON BRAND.)



No. 2. No. 3. No. 4. No. 5. No. 6. No. 9. No. 13.

No. 1.—Boxwood Case, Bullet Shape, on fancy cards containing 1 doz.	per doz	1/9	
„ 2.—Boxwood Case, Pedestal Shape, 1 dozen in cardbox box ..	„	1/9	
„ 3.—Boxwood Case, Acorn Shape, 1 dozen in cardboard box ..	„	3/0	
„ 4.—Boxwood Case, Crown Shape, 1 dozen in cardboard box ..	„	3/3	
„ 5.—Vegetable Ivory, Acorn Shape, 1 dozen in cardboard box	„	3/9	
„ 6.—Vegetable Ivory, Castle Shape, 1 dozen in cardboard box ..	„	4/0	
„ 7.—Nickel Screw Cap Bottle, small size	„	2/0	
„ 8.— „ „ „ large size	„	2/3	
„ 9.—Glass Shade, with China Foot, small size	„	2/9	
No. 10.—Glass Shade, with China Foot, largest size oone (as No. 9), in glass top box	per doz.	5/0	
„ 11.—Boxwood, Acorn Shape (as No. 5)	„	5/0	
„ 12.— „ „ „ on foot (as No. 3)	„	5/0	
„ 13.— „ Barrel „ in glass top box	„	5/0	
Nos. 10, 11, 12 and 13 can be had in glass top boxes of 1 dozen assorted	„	5/0	
No. 14.—Polished Wood Case, Pedestal Shape, 1 doz. in cardboard box	„	1/4	
„ 15.—Penny size, in pink cardboard box	per gross	7/0	
„ 16.—Glass Shade on Bogwood Pedestal	per doz	1/6	
Handsome glass top Counter Cases, containing 4 doz. assorted in case ..		10/6	



T. W., H., & Co.'s Trefoil Perfume Bottle

PERFUMES.

Guaranteed of the very best quality, and put up in attractive style.

A Handsome Show Stand for Perfumes presented with first orders of £5, assorted.

2d. size, per doz., 1/4, on Fancy Cards containing 2 doz. 6d. size, per doz., 3/10. 1s. size, per doz., 7/6.
2s. 6d. size, in the new registered trefoil bottle, very handsome, per dozen, 19/0.

ESS BOUQUET, JASMINE, WHITE ROSE, JOCKEY CLUB, MOSS ROSE, NEW MOWN HAY, HELIOTROPE, PATCHOULI, STEPHANOTIS, YLANG-YLANG, IMPERIAL, &c., &c.

Cavallier Frères' Extracts, &c., in original ¼, ½, and 1 lb. Bottles, per lb. 9/6; 5-lb. Tins, per lb. 9/0.

ODORATORS.

For distributing Perfumes, each in cardboard box, per doz., 8/-, 13/6, 16/-, 19/-, 25/-, 30/-, 34/-, & 48/-.

A great variety of Shapes and Patterns kept in stock.

ENEMAS.

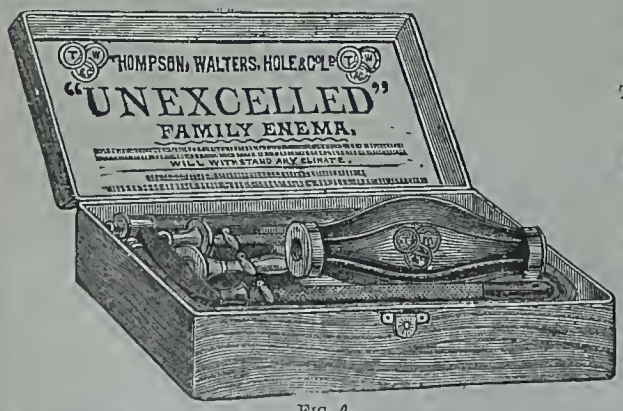


FIG. 4.

THOMPSON, WALTERS, HOLE & Co.'s "UNEXCELLED." A disconnecting enema, pure green, white or black rubber, in fancy wood hinged box, with velvet fittings and catch, the whole so arranged that the different parts of the enema when disconnected cannot touch or adhere, thus eminently fitting this first-class instrument for use in hot climates. With bone rectum pipe, elastic gum vagina pipe and elastic gum pipe and shield for children, as Fig. 4 .. .. per doz. 44/-

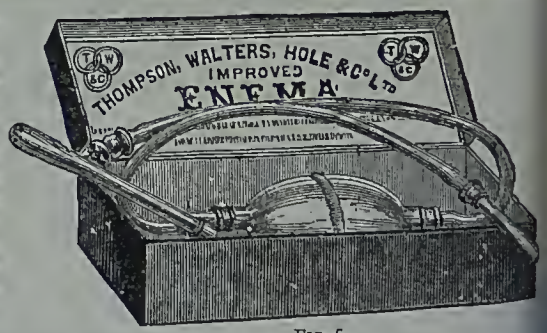


FIG. 5.

THOMPSON, WALTERS, HOLE & Co.'s "IMPROVED" Enema. Pure white rubber, with disconnecting mounts, patent valves, plated motal rectum and vagina pipes, in handsome morocco papered cardboard boxes with attractive label, as Fig. 5	per doz.	21/-	
Ditto, ditto, with vulcanite mount	„	23/-	
Reservoir, continuous stream, brass bronzed	each	21/-	
Ditto, ditto, with elastic silk tube and vagina rectum pipes ..	„	34/-	
192.—Higginsou's enamolled, black, green or red, with bone rectum pipe, elastic gum vagina tube, and shield, in slide cedar boxes ..	per doz.	28/-	
193.—Ditto, ditto, ditto, with disconnecting mounts	„	30/-	
194.—Ditto, drab, ditto	„	22/-	
195.—Ditto, ditto, ditto, with disconnecting mounts	„	24/-	
195A.—Ditto, drab, in oval boxes complete	„	17/6	

FOR OTHER VARIETIES SEE CATALOGUE.

All the above quotations are subject to 5 per cent. discount for Monthly Account. For further particulars and illustrations, see Catalogue, post-free on application.

THOMPSON, WALTERS, HOLE & CO., LIMITED.

[See preceding pages.

SPOTTISWOODE AND CO., PRINTERS, NEW STREET SQUARE, LONDON, E.C.

WHOLESOME AND NUTRITIOUS

PASCALL'S GOLDEN MALTEX



REGISTERED TITLE & MARK Nos. 87192-93 & 90587-88.

MANUFACTURED UNDER PATENT No. 1506

The "CHEMIST AND DRUGGIST" says:

"The tablets are skilfully manufactured to look like little gilt bags stitched and tied with red silk, and they are not less attractive in consumption. The pharmaceutical character they possess is imparted by the fact that they contain 25 per cent. of Allen & Hanburys' Malt Extract. . . . they are an excellent substitute for cod-liver oil, and that they are an improvement on it will not be denied by the most frantic lovers of the luscious oil."

Dr. TANNER, M.R.C.P., F.L.S., says:

"I consider PASCALL'S GOLDEN MALTEX *an excellent and agreeable substitute for cod-liver oil, but with this advantage that they assist and do not impair digestion, and both adults and children take them without any difficulty as they are a most delicious compound. I can scarcely speak too highly of their qualities for giving power to weak, delicate children, pulmonical patients, and infirm persons with feeble digestion."*

Dr. PLANT, M.R.C.S.E., L.R.C.P. (Lond.), says:

"I am much pleased with sample of GOLDEN MALTEX you sent me. . . . They are both nutritious and pleasant to the taste, and will be found most convenient means of administering this very valuable preparation—especially to children."

"A NUTRITIOUS ARTICLE OF CONFECTIONERY," AND SUBSTITUTE FOR COD-LIVER OIL.

Dr. LAKE, M.R.C.S.E., &c. &c. of Thornleigh, Castelnau, Barnes, says:

"Having given the sample of GOLDEN MALTEX to [illegible] as I was able, I have no hesitation saying that I find them decidedly beneficial." . . . June 10th, 1889.

On October 14th, 1889, Dr. LAKE says—"In answer to your further enquiries, I have no reason to alter my opinion about GOLDEN MALTEX, and still continue to recommend them to my patients."

Extract from the "MONTHLY MAGAZINE."

"The dietetic and medicinal good qualities of genuine well-prepared Extract of Malt are now pretty widely known. Its remarkable powers in assisting digestion makes it invaluable in the delicate dyspeptic patient, the difficulty is in administering it; this objection is avoided by the use of PASCALL'S GOLDEN MALTEX, which contains 25 per cent. of Allen & Hanburys' Pure Extract of Malt, and is strongly recommended by the faculty."

Specimen of Counter Bill supplied on application. See Advertisement in this issue for Prices, &c.



A MOST DELICIOUS COMPOUND.

GOLDEN MALTEX.

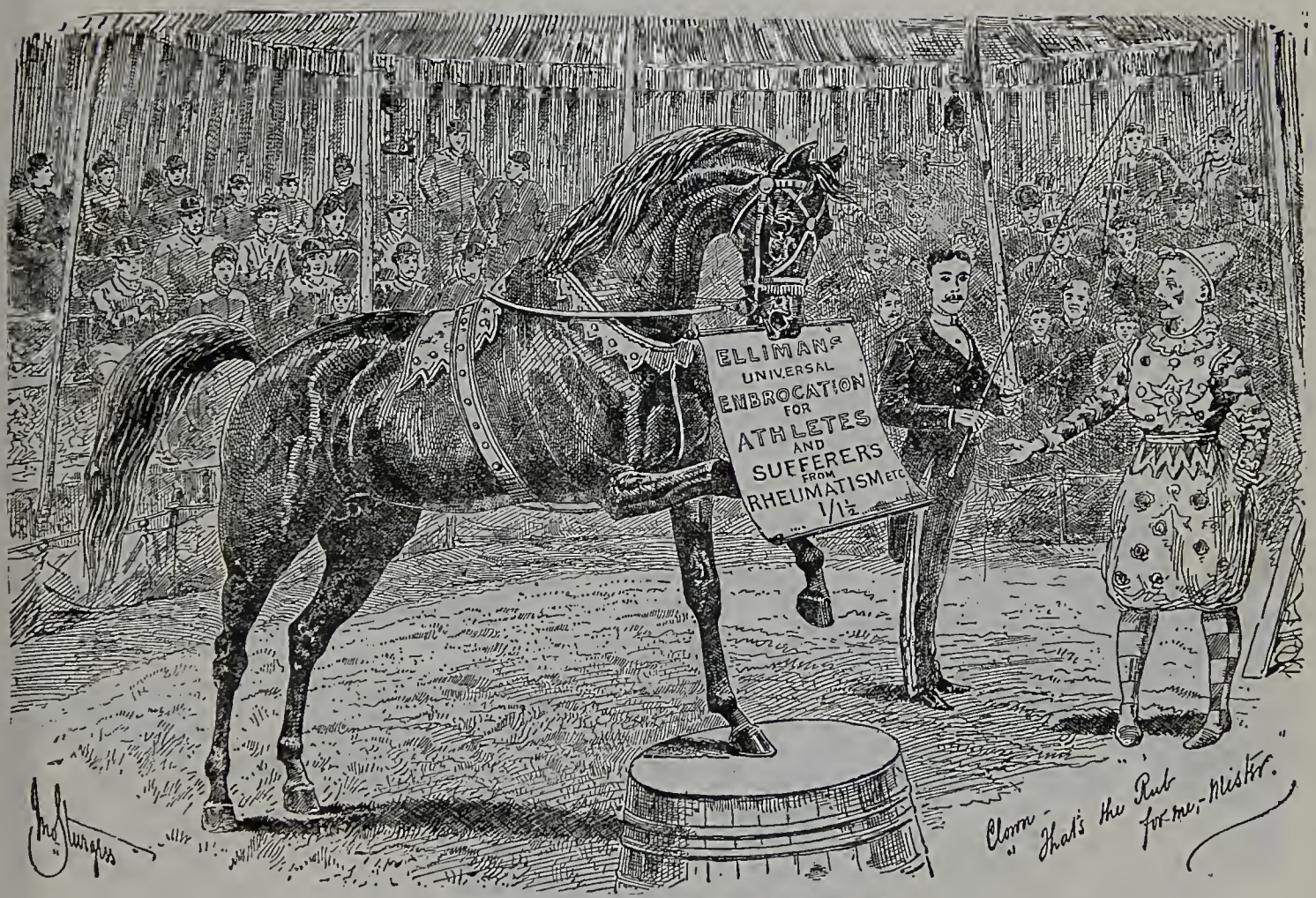
Contains 25 % Allen & Hanburys' Extract of Malt. In various size packages, and loose of all Confectioners, Chemists, &c., or Sample Tin, P.O. 1/4 & 2/6, of J. PASCALL, BLACKFRIARS ROAD, LONDON, S.E.

YOU TRIED THEM?

INCREASE in the Sale

For the Year ending December 31st, 1889,

TWELVE THOUSAND POUNDS.



CLOWN—"THAT'S THE RUB FOR ME, MISTER."

TWELVE THOUSAND POUNDS

Net Cash over and above the Sale for the year ending December 31st, 1888.

(Signed)

ELLIMAN, SONS, & Co., Slough, England.

INCREASE in the Sale

For the Year ending December 31st, 1889,

TWELVE THOUSAND POUNDS.



COME TO GRIEF FOR WANT OF ELLIMAN'S.

TWELVE THOUSAND POUNDS

Net Cash over and above the Sale for the year ending December 31st, 1888.

(Signed)

ELLIMAN, SONS, & Co., Slough, England.

INCREASE in the Sale

For the Year ending December 31st, 1889,

TWELVE THOUSAND POUNDS.



BROKEN KNEES—A CASE FOR ELLIMAN'S.

TWELVE THOUSAND POUNDS

Net Cash over and above the Sale for the year ending December 31st, 1888.

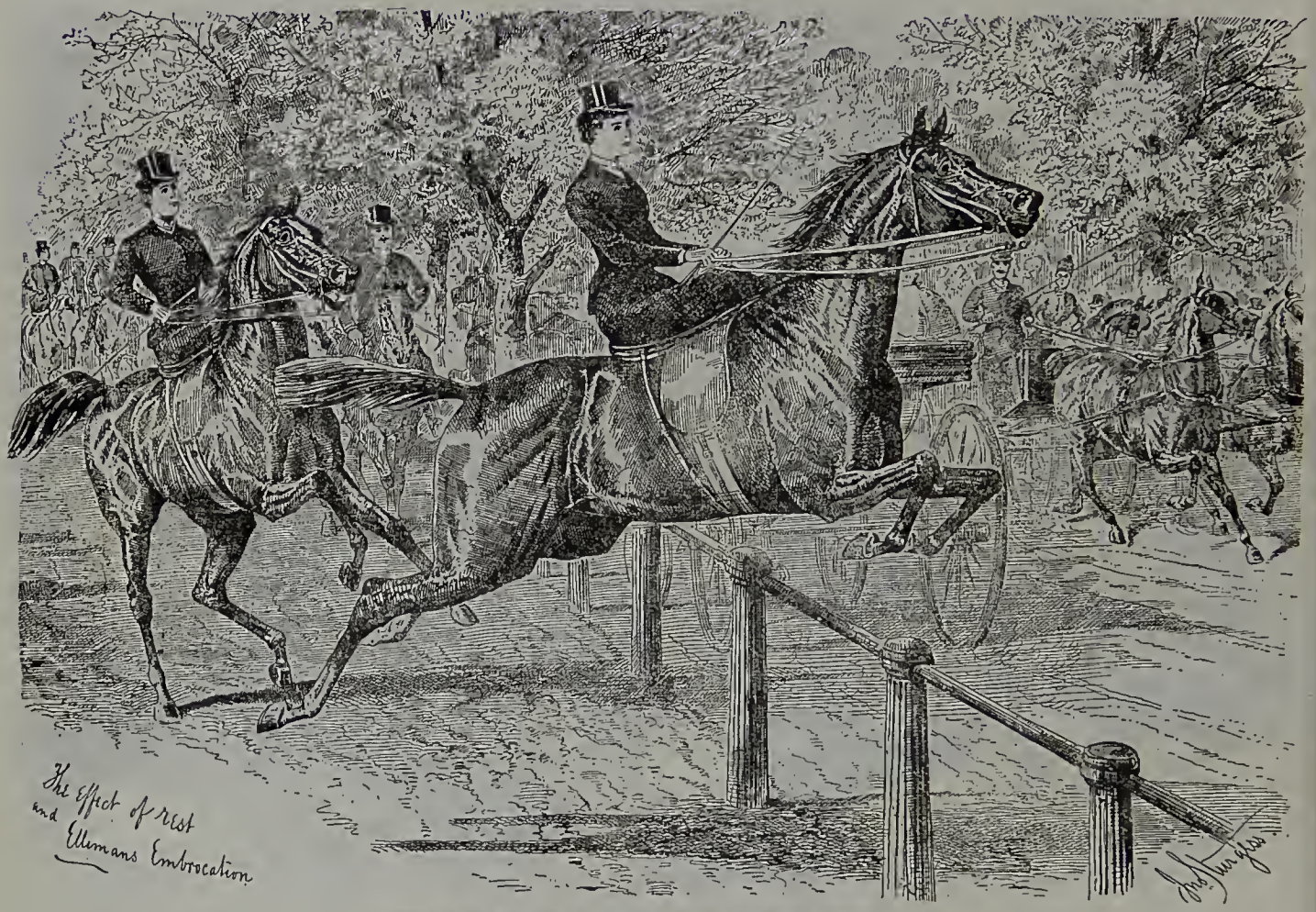
(Signed)

ELLIMAN, SONS, & Co., Slough, England.

INCREASE in the Sale

For the Year ending December 31st, 1889,

TWELVE THOUSAND POUNDS.



THE EFFECT OF REST AND ELLIMAN'S EMBROCATION.

TWELVE THOUSAND POUNDS

Net Cash over and above the Sale for the year ending December 31st, 1888.

(Signed)

ELLIMAN, SONS, & Co., Slough, England.

INCREASE in the Sale

For the Year ending December 31st, 1889,

TWELVE THOUSAND POUNDS.



THE EFFECT OF REST HAS GONE, THE EFFECT OF ELLIMAN'S EMBROCATION REMAINS.

TWELVE THOUSAND POUNDS

Net Cash over and above the Sale for the year ending December 31st, 1888.

(Signed)

ELLIMAN, SONS, & Co., Slough, England.

INCREASE in the Sale

For the Year ending December 31st, 1889,

TWELVE THOUSAND POUNDS.



AFTER THE GALLOP. TRAINER—"GET HIM HOME, AND APPLY ELLIMAN'S EMBROCATION."

TWELVE THOUSAND POUNDS

Net Cash over and above the Sale for the year ending December 31st, 1888.

(Signed)

ELLIMAN, SONS, & Co., Slough, England.

INCREASE in the Sale

For the Year ending December 31st, 1889,

TWELVE THOUSAND POUNDS.



VETERAN—"IT HAS BEEN USED IN MY STABLES FOR YEARS, AND GOOD IT IS."

TWELVE THOUSAND POUNDS

Net Cash over and above the Sale for the year ending December 31st, 1888.

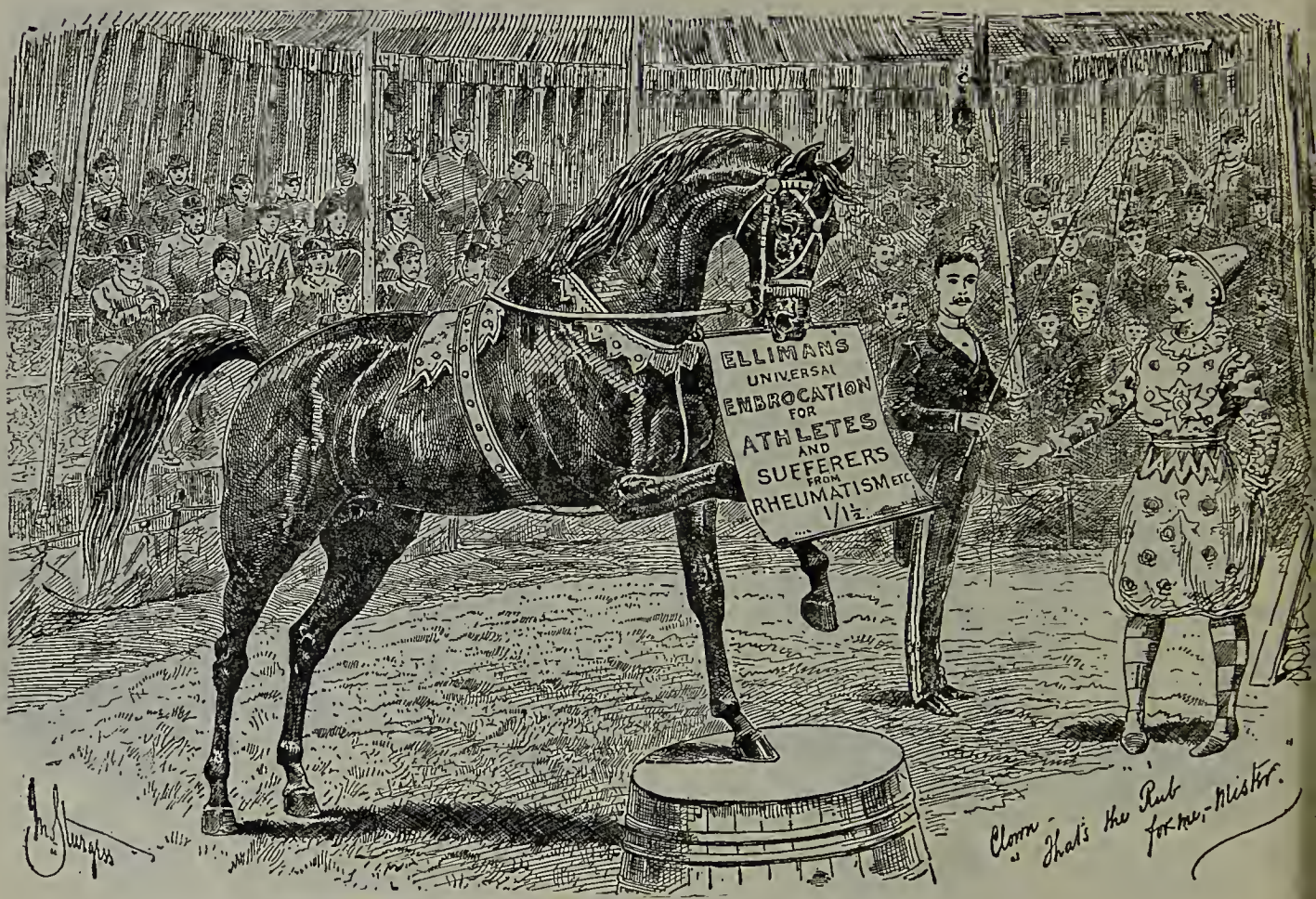
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(Signed)

ELLIMAN, SONS, & Co., Slough, England.

SHIRLEY'S FIRST PAGE IS DEVOTED TO A1 BRAND MENTHOL CONES



Any who have not already had one of the well-known and delightful China Show Figures of "THE LITTLE CRIER," should at once get one, as it will be found greatly to assist the sales of MENTHOL CONES, as well as being an ornament to the counter or window. Special parcels have been arranged to suit all classes of trade :—

Parcel 1. 25/-	Parcel 2. 25/-	Parcel 3. 25/-	Parcel 4. 25/-
4 doz. 2d. 1 doz. 3d.	4 doz. 6d.	3 doz. 3d.	1 doz. 9d.
2 doz. 3½d. 3 doz. 4d.	2 doz. 4d.	2 doz. 1s.	2½ doz. 1s.
2 doz. 6d.	1 doz. 1s.	1 doz. 4d.	½ doz. 1s. 6d.
Parcel 5. 40/-	**Parcel 6. 40/-**	**Parcel 7. 40/-**	**Parcel 8. 40/-**
4 doz. 2d. 2 doz. 3d.	5 doz. 6d.	4 doz. 6d.	4 doz. 1s.
3 doz. 3½d. 5 doz. 4d.	3 doz. 4d.	4 doz. 4d.	2 doz. 9d.
4 doz. 6d.	2½ doz. 1s.	1 doz. 9d. 2 doz. 1s.	½ doz. 1s. 6d.

The following can be well recommended as good value and saleable patterns :—



No. 112.

per doz

No. 113 6d. Boxwood, Cartridge Shape... 3/6
8P 6d. Boxwood, Acorn Shape 3/3
111 1/- Boxwood, Acorn Shape... ... 7/-
113R 6d. Boxwood Reversible Shape 3/6



Nos. 8P & 111.

per doz

No. 17F Very large flat boxwood (a perfect pocket shape) 5/-
112 Boxwood Draughtsman 3/3
113 Lge. English willow Pedestal 2/6



No. 109.



No. 17 F.

No. 20 1/- shape, specially intended for hot climates. The Menthol is put up in well-stoppered bottles, the cone being fitted in the socket of stopper 7/-
30 Glass shade on boxwood foot ... 2/-
31 Ditto 5/-
33 Ditto, enamelled... 2/9

A1 Menthol Ointment
—:—
Elegantly put up in blue pots,
8/- per doz.

A1 Menthol and Cocaine Toothache Tube Sell Well.
3/6 doz.
12 on a card.

No. 13A Vgtble. Ivory Acorn 5/3
17VI ,, ,, Flat 6/-
17E Handsome Ebony do. 6/6
26A 6d. Glass Shade on China 3/6
27A 1/- ,, ,, ... 6/3
29 CUT Glass Shades, elegant cuttings ... 10/-
32 Colored Metal Shades on boxwood foot ... 3/-



No. 112.

A1 Menthol Influenza Snuff.
3/6 & 7/- doz.

☞ The following boxwood cases have directions printed on the boxwood.

No. 6 Pedestal Shape ... 3/6 per doz.
11A ,, ,, ... 3/- ,,
14A ,, ,, ... 6/3 ,,
9s Skittle Shape ... 3/6 ,,
17s Draughtsman Shape... 3/9 ,,
17L ,, ,, ... 6/6 ,,

*** Buyers of a gross and upwards can have name and address printed on the cases free of charge in any language.

1d. 2d. & 3d. Menthol Cones for those obliged to sell cheap lines



No. 110.



No. 110V.



No. 110P.

No. 110.	**1d.**, bottle shape,	3 doz. on a card,	7/- per gross.	
No. 110V.	**1d.**, vase ,,	3 ,,	7/3 ,,	**Carded with Elastic NOT Glue.**
No. 110P.	**1d.**, pedestal ,,	3 ,,	7/9 ,,	
No. 114.	**2d.**, ,, ,, (*Varnished*)	2 ,,	16/- ,,	
No. 115.	**3d.**, Draughtsman (*Varnished*)	2 ,,	20/- ,,	

Special Quotations to Large Buyers!!!

STATE DISTINCTLY WHEN ORDERING, SHIRLEY'S A1 BRAND.

ARTHUR W. SHIRLEY, 55, Farringdon Road, London, E.C.

(WITHIN A MINUTE OF FARRINGDON STREET STATION.)

OVER.

SHIRLEY'S SECOND PAGE

IS DEVOTED TO

Smelling Bottles, Odorators, &c.

BEFORE BUYING elsewhere, please CALL AND INSPECT SAMPLES, and you will find great advantage over any other house in the trade, both as to price and variety. Satisfaction certain. Newest Patterns constantly added. Special terms arranged with large buyers.

BELOW ARE A FEW ILLUSTRATIONS—



No. 144.
Toilet shape, deep diamond cutting, 16/6 per doz.



No. 132.
Wide mouth, reversible shape, diamond cutting, 7/3 per doz.



No. 116.
Toilet, assorted cuttings, rose stopper, 6/6 per doz.



No. 152.
Moulded square, nickel cap, rubber washers, 1/8 per doz. 28/- per gross filled.



No. 112.
Pretty watch, with red and gold horse-shoe, 5/3.



No. 109.
Watch, star cutting, 6/-



No. 147/8.
Very elaborate tube shape, assorted cutting, crystal stopper, 11/-

Any Pattern can be had, filled with sponge or salts, and boxed in show boxes, at prices ranging from 6d. per dozen upwards, according to size.

CHINA BOTTLES WITH NICKEL PLATED CAPS.



No. 163.

No. 163. Fig shape, prettily decorated, **5/-** per doz.

No. 164. Octagon, plate-shape, **5/-** per doz.

No. 161. Egg shape, with birds and flowers, **5/-** per doz.



No. 164.



No. 167.

No. 167. Watch shape, fitted with chatelain ring, very pretty decoration, **8/-** per doz.

No. 160. Tube shape, a good selling line, **8/-** per doz.

No. 165. Flat pedestal shape, with violets, **5/6** per doz.



No. 160.

ODORATORS.



No. 11. Substantial, plain cutting, fitted with the new pump spray, well-nickelled and not likely to get out of order... **48/-** per doz

No. 8. Clear glass, raised flowers and buttorfly, double ball ... ... **33/-** ,,

No. 6. Cut glass, toilet, barrel shape, elaborate cutting, double ball ... ... **33/-** ,,

No. 1. Opaque glass, pink and gold flowers, double ball ... ... **28/-** ,,

No. 2. Clear glass, tall shape, with horon and flowers, single ball ... ... **14/-** ,,



ARTHUR W. SHIRLEY,

55, FARRINGDON ROAD, E.C.

Close to the Station.

A SUCCESSFUL AND ATTRACTIVE AGENCY.

How a Chemist may make the Agency of the Half-Price Closed Letter Company, Limited, most valuable in attracting custom.

———:o:———

The Agency: What is it?

It consists in being licensed to sell, at a profit, for **one Halfpenny each**, a Penny Postage Stamp, a Patent Safety Envelope, and a Sheet of Letter or Memorandum Paper.

How is it done?

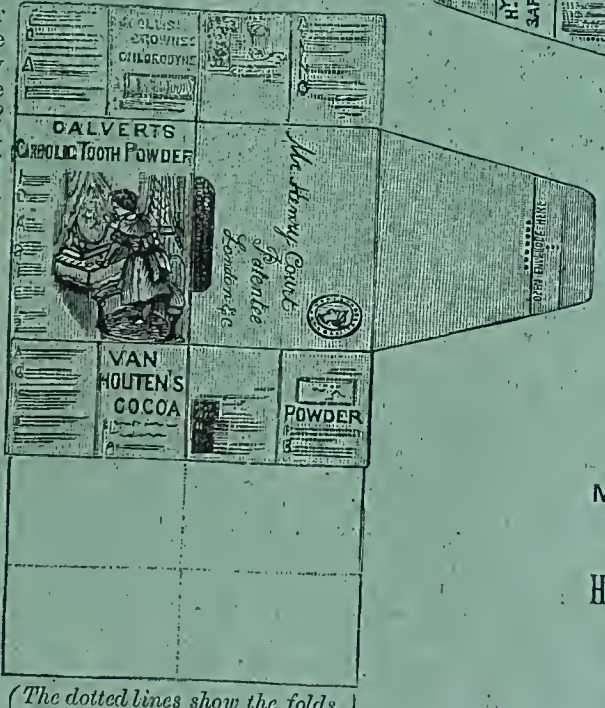
By means of Advertisements ingeniously yet prominently inserted on the inside of the Envelopes, so that while they are not seen at all as the letter passes through the post, both the Sender and Receiver cannot help seeing them.

Is not the scheme visionary and impracticable?

Why? Has it never occured to such questioner when he opens his daily newspaper (which he buys for one penny) that he has really obtained that which costs the publisher **Twopence** at the least to produce? and that if advertisers were not enterprising enough to pay the other penny for him, he could not possibly get it for the price he now pays? Look at the present number of the **Chemist and Druggist.** One can readily understand that it would be absolutely impossible to sell such a bulky volume, post free, for 4d. if it was not for advertisers paying the larger part of the cost of production. And why should not such a sound principle be applied to **Postage Stamps**, in order to reduce their cost to the public?

SKETCHES OF
HENRY COURT'S
PATENT
SAFETY ENVELOPE.
MEMORANDUM SHAPE.

Front view drawn one-fifth full size.



(The dotted lines show the folds.)



Back view drawn one-fifth full size.

MANUFACTURED AND SOLD
(under License from the Inland Revenue)
BY THE
Half-Price Closed Letter Co.,
Limited,
85, Gracechurch Street,
LONDON, E.C.

But has not the idea been already tried?

Yes. The idea is almost as old as the universal Penny Post, the Jubilee of which we are now keeping. Hundreds of ingenious inventors have racked their brains to discover the best way of doing it, for it is obvious to all that an immense future is before the design that successfully accomplishes it. It is only however since Mr. Henry Court's ingenious Envelope Combination (worked by this Company) has been invented that the great difficulties (of such an apparently simple thing) have been practically overcome. This design should not therefore be confounded with other complicated and useless devices in which the Postage Stamp can be readily separated from most of the Advertisements.

Who should Advertise in them?

Everybody who appeals to the general public for support, excepting only those announcements which are of a temporary character. Going, as do these Envelopes, straight into the **Homes of the People**, with an introductory communication, they offer a splendid and unrivalled medium to resolute Advertisers.

Having secured an Agency, how should a Chemist develop it?

By sitting still, and trusting to luck? Certainly not! Whoever heard of an Agency for anything or anybody being successfully worked in this way? A representative must bear in mind that it is only by advertisements that the irremoveable Postage Stamps on these Envelopes can be sold so cheaply, and, as it is self-evident that the Envelopes he sells will greatly benefit any people (local or otherwise) who are trying to build up a trade, or are already trading, **in his district**, so he should lose no opportunity of urging them to take advantage of this medium.

Should an agent do this canvassing personally?

If he has time he should certainly make a few calls himself. What an opportunity it gives him to introduce himself to his neighbours, who probably have hitherto been patronizing his competitors, but who cannot sell these Stamped Envelopes. It also gives him facilities for leaving his own price list personally. Nearly all retail chemists find trade slack during a certain portion of the day and this time can be advantageously utilized by making the acquaintance of their neighbours in this practical way. If they cannot canvass personally they should employ a good salesman in the double capacity of canvassing during the slack hours, and helping at the counter during the busy time. It forms a pleasant outdoor change to the monotony of shop life. Thus the whole time of a competent assistant can be turned into money, and by means of this agency a chemist can have, almost gratuitously, the extra services of a pushing salesman when required at the counter.

Who should be called upon?

The Company have so fully set forth all this in their copyright pamphlet—"**Successful advertising; or the economical way of reaching the people in their homes.**"—that they simply urge every agent to master its contents before commencing to work an agency. He will then soon know who to call upon.

Who should be written to?

All the wholesale people and manufacturers the agent buys from, and who are trying to make, or keep up, a **people's demand** for anything they expect such a chemist to sell. These should certainly be written to, and how can they refuse

A SUCCESSFUL AND ATTRACTIVE AGENCY.

to comply with so reasonable a request? Especially if it is re-echoed by all the representatives of the Company throughout the length and breadth of the land. Such firms must be made to consider these Stamped Envelopes their **Standard Medium** for reaching the people through the chemists, whom, of course, they cannot dispense with.

But does it pay to so canvass?

Assuming the town the chemist is agent for has a population of, say, 35,000 people, the supplies of Envelopes should be at least 2500 a week. The commission allowed by the Company on the Advertisements to fill such a quantity will amount to about £2 a week, and which will well repay the employment of an extra competent man to canvass and assist at the counter—where he will be fully employed in doing the extra trade this agency must undoubtedly bring to any shop where it is worked in earnest.

What about large Towns where there are several Selling Agents? Should the Agents there Canvass?

That depends. If an Agent desires to canvass, or to superintend the entire canvass for any large town, the Company will offer no objection—providing no regular canvasser for that district has already been appointed—but will render such agent every possible assistance to make his canvassing successful, and in which his local knowledge will be very beneficial to the business. As an instance of the lucrative character of such canvassing, it may be mentioned that in the largest provincial towns (where a supply of 5000 Stamped Envelopes per day will only whet the public appetite for more) the commission allowed will amount to upwards of £1500 a year!!! Sufficient to induce any enterprising Agent to undertake it, and to enable him to employ a competent staff to see that it is thoroughly done.

But what about Agents in small Towns? How are they to get Envelopes to Sell?

By issues of their own, but, of course, not brought out so frequently as in the larger towns. To suit all, the Company now bring out short issues of 5,000 Stamped Envelopes only, so that the smallest place (which by a few local advertisements, can support a *weekly* newspaper) can also find advertisers enterprising enough to support such a small issue *quarterly*. Even if they only fill *half* such an issue every three months, the Company will fill up the remainder with general advertisements. And to still further facilitate issues of Envelopes for the smallest towns, a quarterly issue (although manufactured at once) may be sent off to the agent in monthly instalments of 1,600 or 1,700. Thus the amount of Local Advertisements to keep such issues going (and to give that place the benefits of a **Halfpenny Closed Letter Post**) is only about £5 a month! Is it too much to expect a resolute Agent in these places to get, either himself or by means of a local canvasser, Advertisements up to the minimum quantity of twenty-five shillings a week, in order to secure the advantages attending the holding of such a lucrative appointment?

Will it be necessary to keep up a Canvass?

When the issues for any town have once been fairly started the canvass can be greatly relaxed, or almost entirely dispensed with. Therefore selling agents, who have retained the canvassing for advertisements as well, will find the business easily managed and most remunerative—giving, in fact, very little trouble and with all its attendant advantages. It only requires to be set about zealously at the commencement, and then few agencies, if any, give a better return, or more encouragement to the agent.

But how about those selling Agents who don't want to bother with getting Advertisements at all?

They have only to recommend to the Company some suitable, energetic and trustworthy man to undertake this, and whom the Company will put on to work directly for them. There are plenty of such men who would be glad to know that such appointments are vacant. And when one sees how persevering and energetic Industrial and other Life and Fire Insurance Canvassers have to be, for much smaller remuneration, the comparative easy nature of working the local advertisements for these Stamped Envelopes, should be highly appreciated. But, of course, the business must be set about in earnest to insure success.

What other benefits does such an Agency bring?

In addition to a fair profit allowed for selling them—and which is far more than the Government allow Post Offices on Stamps—the fact of people being able to buy at these Shops only, their Postage Stamps at Half-price must certainly attract a large amount of extra custom, which any shopkeeper can soon utilize to vastly increase his business. Many obscure shops in side streets have (by means of this Agency) been able to attract more trade than their competitors in main thoroughfares. It is cheaper and more satisfactory to work this Agency, than to "work for one's landlord," as so many unfortunately do. As a case in point, it may be mentioned, that an Agent in the Eastern Counties had lately a casual customer, who was solely attracted by the display of the Company's Transparency in the window. He simply bought an Envelope and—left; in a few days he returned, bought two more, and ordered a 2s. 9d. Prescription to be made up. He has since had this medicine dispensed regularly every second day for weeks—we hope it does him good. Chemists need not be told the profit there is from such a customer; but the probability is that this man would never have gone inside that shop at all, but for the Chemist selling these Stamped Envelopes, and this Agent says this is only one instance among many he has had.

Who may become Agents?

Any shopkeeper who lives in a town where there is not yet a representative, and if such a town has not 50,000 people, he will be *sole* agent. If the town has more than 50,000 people, there is only to be one agent for every 50,000 inhabitants. Thus, the Company's retailing depots can never be too close together. Shopkeepers are preferred who already hold a Stamp License, but who have not a Post Office. If a selected Chemist has not a Stamp License, the Company will get him one, free, providing he is not too near to a "Receiving" Post Office, or an already licensed Stamp Dealer. A "Receiving" Post Office, is one conducted at the shop of a tradesman, who *also* carries on his own business there. In many towns, the Company has already appointed its Agents, and of course cannot appoint others; some of these are doing remarkably well, and would not part with the Agency on any terms. If any enterprising Chemist entertains an agency, and applies to the Company, they will at once tell him if such an appointment for his town is open, and the terms of same.

"**Those who put their Shoulder to the wheel,**" soon find that such an agency is the "surest way of bringing custom to their shops." There are instances of Chemists starting new businesses, who have quickly made their shops the busiest and most talked about in their town—**not by cutting down the retail prices of their goods until their profit approaches Zero**—but by taking this Agency and working it with spirit.

IT PAYS THEM TO DO SO!!!

All Advertisers should read

"**SUCCESSFUL ADVERTISING: Or the Economical way of reaching the People in their Homes,**"

to be obtained for One Stamp, from

THE HALF-PRICE CLOSED LETTER COMPANY, LIMITED.

85, GRACECHURCH STREET, LONDON, E.C.

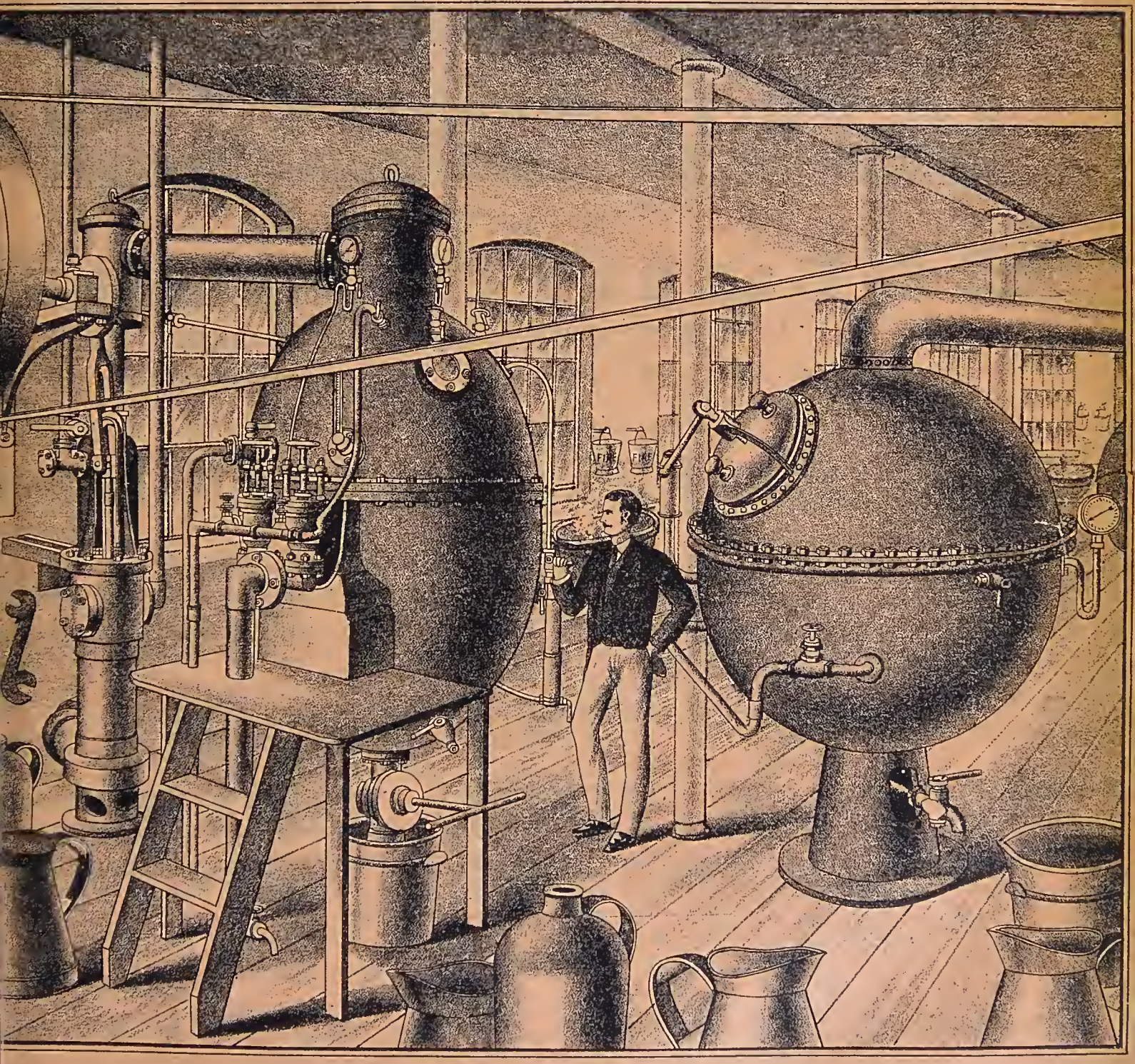
NEWBALL & MASON,

Manufacturing Chemists & Botanic Druggists,

PARK PLACE, NOTTINGHAM,

INVENTORS OF EXTRACTS FOR MAKING

NON-INTOXICATING BEVERAGES.



OUR EXTRACTS ARE PREPARED IN VACUO, BY WHICH PROCESS THE AROMA AND FLAVOUR ARE PRESERVED TO THE FULLEST EXTENT.

Telegrams—"EXTRACT, NOTTINGHAM."

[P.T.O.

WARNING TO THE TRADE.

MASON'S IS THE ORIGINAL EXTRACT OF HERBS

FOR THE PRODUCTION OF

Botanic Beer

A NON-INTOXICATING BEVERAGE,

Full of Body and Flavour, with a Creamy Head like Bottled Ale. The most perfect substitute for Alcoholic Drinks ever discovered, for either Summer or Winter.

NUMEROUS IMITATIONS ARE BEING OFFERED, BUT NONE CAN COMPARE WITH OURS—IT IS

UNEQUALLED FOR PURITY & HERBACEOUS FLAVOUR

Do not be persuaded to buy any other kind, as the market is now flooded with vile rubbish, most of which contain no Herbs at all, and will not produce the same result. We guarantee ours to be COMPOSED OF HERBS ENTIRELY.

BEWARE OF OTHERS COPYING OUR OLD ESTABLISHED TITLE.

MASON'S WINE ESSENCES

Will produce in a few minutes unfermented **TEMPERANCE WINES, CORDIALS,** and **FRUIT SYRUPS,** by the simple addition of sugar and water.

GINGER, LEMON, ORANGE, COWSLIP, BLACK CURRANT, RASPBERRY, PINE APPLE, WARMINE (a winter Punch).

These Essences are having a demand now, and are extensively advertised, we would recommend Chemists to hold a stock.

Sole Inventors and Manufacturers:—

NEWBALL & MASON, Manufacturing Chemists, Park Row, Nottingham.

Sold in Bottles, 6d., 1s., 2s., and 5s. each. Prices, Circulars Show Cards, and attractive advertising matter on application. Our Extracts are not affected by Climate or Weather

reatment of

Influenza



BY

PUMILINE.

DIRECTIONS FOR USE.

TREATMENT OF INFLUENZA

BY

— PUMILINE. —

DIRECTIONS FOR USE.

The air should be kept charged with the fragrant and antiseptic vap of **Pumiline** by means of a Spray Apparatus, or by placing a small quan in a shallow receptacle. This will keep off an attack.

Should the headache, general soreness, &c., show an attack to imminent, the sufferer should at once take a Hot Bath (105 to 110° F of as high a temperature as the patient can bear) in which a bottle of **Pumiline Extract** has been dissolved, remaining immersed for ten min to be repeated if necessary twelve hours later. He should then be wa wrapped up, and lie down in a warm room secure from draughts. Cata symptoms are best met by the systematic inhalation (once an hou **Pumiline**, either by an ordinary hot-water inhaler or by means of the si "DRY INHALER," the medicated air being drawn well into the lungs. one to four drops of **Pumiline Essence** should be taken on a piece of s or in the form of Jujubes, every four hours from the very commencem Localised pain will be promptly relieved by gently rubbing in **Pum Liniment** at short intervals.

A Bottle of each of these Preparations, ready for should be kept by every family.

	PER BO
Pumiline Essence for Inhalation and Internal Use ...	1/6 an
Pumiline Extract for Baths	1/–
Pumiline Liniment for External Use	1/1½ "

The Medical Press of December 18th, 1889, says—"Nothing is better suited t off an attack of Influenza than STERN'S PUMILINE; as a remedy it is no less effic both internally and by inhalation."

The Hospital Gazette of December, 1889, says—"There is nothing more effic or to cut short an attack of Influenza, than STERN'S PUMILINE. This potent remed be taken as an inhalation or internally."

G. & G. STERN,

62, GRAY'S INN ROAD, LONDON, W.C.

ERN'S PUMILINE PREPARATIONS,

For Rheumatism, Throat and Chest Affections, and Skin Diseases.

PRICE LIST.

	s.	d.
LINE ESSENCE, for Inhalation in Chest and Throat Affections - - ½ oz. Bottles	1	6
,, ,, - - - 1 ,,	2	6
,, EXTRACT for Baths (Bottle sufficient for one bath) in Rheumatism, &c. - -	1	0
,, JUJUBES (coated or plain) - per Box	1	1½
,, ,, (Larger Size) - ,,	2	3
,, OINTMENT, for Skin Irritation, Eczema, &c. per Pot	1	1½
,, ,, (Larger Size) - ,,	2	9
,, LINIMENT, for Muscular Pains, Lumbago, Sciatica, &c. - - per Bottle	1	1½
,, ,, (Larger Size) - ,,	2	9
,, PLASTER, for Lumbago, Sciatica, Backache, &c. (St. Dalmas) - - - each	1	1½
,, SOAP (extra superfatted) - per Tablet	0	6
,, ,, (Larger Size) - - ,,	1	0
IAL STEAM INHALER - - - each	10	0
-FOG and MIST DRY INHALER - - ,,	1	6
SPRAY or VAPORIZER - - - ,,	2	0
MATIC SPRAY for DEODORIZING - ,,	0	8
AL WOUND PAD and PROTECTOR for OINTMENTS, NIMENTS, or LOTIONS (various sizes), from per doz.	1	6

UMILINE BATHS promptly abate the feverish chills of incipient Influenza.

G. & G. STERN,

52, GRAY'S INN ROAD, LONDON, W.C.

PUMILINE.

A PINE HARVEST ON THE ALPS.



Collecting the Pumilio Pine Tops for G. & G. STERN'S PUMILINE.

G. & G. STERN, 62, Gray's Inn Road, LONDON,

EXCLUSIVELY OBTAINED FROM



THE SNOW-GROWN PINUS PUMILIO.

STERN'S PUMILINE.

PUMILINE ESSENCE

Is a specially prepared volatile essence, distilled from a particular variety of pine, growing nearest the snow level on the Alps. It possesses exceptional medicinal properties when given internally, or in the form of inhalations, in the treatment of Pulmonary and **Diathetic Affections**, such as **Phthisis, Rheumatism, Gout, &c.** It is a valuable deodorizer and disinfectant, and has a peculiarly refreshing and fragrant odour.

PUMILINE JUJUBES

For **Sore Throat, Cough, Hoarseness, &c.**, they give immediate relief.

PUMILINE LINIMENT

Specially beneficial for use in Chronic **Rheumatism, Gout, Lumbago, Sciatica, &c.** It is also invaluable for **Throat** and **Chest Affections**, and may be *taken internally, in doses of 2 to 5 drops.*

PUMILINE PLASTER

Is most effective in **Chronic** and **Muscular Rheumatism, Lumbago, Sciatica**, and also for **Chest Affections.**

PUMILINE EXTRACT

For **Gout, Rheumatism**, and **Skin Disease**; used in BATHS, **Ointments**, and **Liniments.**

PUMILINE OINTMENT

For all **Skin Affections, Irritations, Insect Bites, Burns, &c.** This Ointment is a fine smooth homogeneous application. It gives immediate relief in the intolerable itching of **Eczema**, &c. It is unrivalled both as a medicinal agent and toilet requisite.

PUMILINE SOAP

Is a carefully neutralised **superfatted** Soap, containing no free alkali, and is a **Lubricant** instead of a **Desiccant** to the skin. It is peculiarly adapted for use to the delicate skin of ladies and children. It leaves the skin smooth and satiny, and beautifies the complexion. The Pumiline Essence which it contains makes it a powerful disinfectant.

PUMILINE DRY INHALER

Most effective and convenient pocket inhaler for use in Throat or Lung Troubles. Is invaluable for use during a fog or mist.

G. & G. STERN have so arranged their Price List that a *very large margin of profit* is left to Chemists and to the Trade generally. In consideration of this, as well as the fact *that no other* Pine Preparations are in any way equal to STERN'S PUMILINE, Chemists will find it much to their advantage to stock the Pumiline Preparations.

PRICES—

	RETAIL	WHOLESALE.
PUMILINE ESSENCE	1/6 and 2/6 per bottle	15/ and 24/ per dozen.
PUMILINE EXTRACT	1/ per bottle	9/ per dozen.
PUMILINE JUJUBES	1/1½ and 2/3 per box	10/6 and 20/ per dozen.
PUMILINE OINTMENT	1/1½ and 2/9 per pot	11/ and 27/ per dozen.
PUMILINE LINIMENT	1/1½ and 2/9 per bottle	11/ and 27/ per dozen.
PUMILINE SOAP...(box of 3 cakes)	1/6 and 9*d.*, and 1/ per tablet	15/, 7/6, and 9/ per dozen.
PUMILINE PLASTER	1/1½ each	9/ per dozen.
PUMILINE DRY INHALER	1/6 each	14/ per dozen.

BESIDES WHICH *AN ADDITIONAL DISCOUNT* IS ALLOWED TO CHEMISTS AND THE TRADE.

G. & G. STERN, 62 Gray's Inn Road, LONDON, W.C.

Will send Show Cards and Literature Free on Application.

[*See also page* 12].


1.—10/6

J. ORME & CO.



1

(Late M. JACKSON & CO.),

MANUFACTURERS

OF


2.—3d. to 2/6


10.—21/-

SCIENTIFIC APPARATUS,

AND IMPORTERS OF


3.—2d. to 3/6

Finest BOHEMIAN and GERMAN GLASS AND PORCELAIN

CHEMICAL APPARATUS,



ALSO

PURE CHEMICALS

For Analysis,


11.—14/6

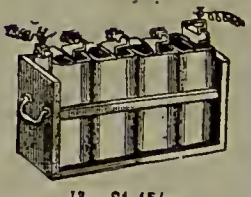

4.—2/6 5.—1/3

By appointment to Her Majesty's Honourable Board of Inland Revenue; Science and Art Department and Government Schools at South Kensington; the Crown Agents for the Colonies; the Pharmaceutical Society of Great Britain, &c.


12.—4/6 to 25/-


6.—2/6.

APPARATUS SECURELY PACKED FOR THE COLONIES AND FOREIGN PARTS.


13.—£1 15/-


7.—3d. to 4/-

NEW PRICE LIST OF CHEMICAL APPARATUS,

Containing 6,000 Illustrations, price 6d.

Complete Illustrated Catalogue of Scientific Apparatus, 1,500 Woodcuts, price 2/6.

(To the Trade, post free 3d.)


8.—£4 4/-

J. ORME & CO.,

65 BARBICAN, LONDON.


14.—£1 1/-

DISCOUNT TO THE TRADE.

ESTD. 1852.

PERKEN, SON & RAYMENT,

CATALOGUE POST FREE.

99 HATTON GARDEN, LONDON, E.C.

TRADE **'OPTIMUS'** MARK.



'OPTIMUS' RAPID EURYSCOPE.

The Aperture is **F/6.** The Lenses are of Special Optical Glass, construoted with the nicest precision of ourvatures, so maintaining good marginal definition, coupled with the most extreme rapidity.

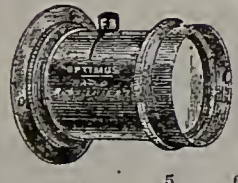
To cover	5×4	7×5	8×5	9×7	10×8
Focus	5½	8¾	10	12	14 inches.
	63/-	94/6	110/-	126/-	220/-

'OPTIMUS' WIDE-ANGLE EURYSCOPE.



(Double), F/9·50. This aperture is exceedingly open for wide angle work. The definition, however, is in no way sacrificed, as the curvatures are most perfectly accurate, and the minute detail in architectural and interior snbjects is rendered with tho maximum of crispness and a total absence of distortion.

To cover ..	5 × 4	7 × 5	9 × 7	10 × 8
Focus ..	4	5¼	7	7¾ inches.
	63/-	94/6	126/-	220/-



'OPTIMUS' RAPID RECTILINEAR.

F/8 Second only to the above for Rapidity, therefore well suited for instantaneons effects, ontdoor groups and views, as well as interiors; copying and enlarging are also within the capabilities of this lens—in fact its work may be styled UNIVERSAL.

	5/4	6/5	7/5	8/5	9/7	10/8	12/10	15/12	16/16
Focus ..	5½	6¾	8⅗	10	12	14	18	20	25 in.
	33/-	45/-	49/6	64/-	82/6	127/6	142/6	180/-	225/-

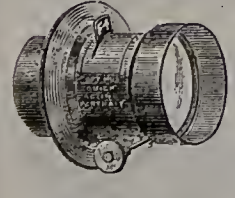
'OPTIMUS' WIDE-ANGLE SYMMETRICAL.



Works **F/16.** Specially adapted for Architecture.
Can be used to advantage when very close to the subject.

	5/4	7/5	9/7	10/8	12/10	15/12	16/16
Focus ..	4	5¼	6	7	8	10	12 in.
	39/-	52/6	82/6	127/6	142/6	180/-	225/-

'OPTIMUS' QUICK-ACTING PORTRAIT.



Works **F/4.** Specially constructed for short exposures in Portraiture. They are second to none, definition being maintained by their perfect optical qualities.

Diam.	2 inches.	2¾ inches.	3½ inches.
Equiv. Focus ..	6½	8	10 in.
Price	90/-	120/-	180/-
	1 B	2 B	3 B

'The "OPTIMUS RAPID EURYSCOPE," manufactured by PERKEN, SON & RAYMENT. With full aperture of 1¾ in. (its equivalont focns being 11 in.) it defines with EXTREME BRILLIANCY, and when used with a stop it easily covers a 10 by 8 plate to the corners, which is larger than that engraved on the monut as its possibility. Working as it does with such a LARGE APERTURE (F/6 approx.) it serves as a portrait and group Lens, as well as a landscape and copying objective. There is no doubt of its proving a most USEFUL LENS.'—J. TRAILL TAYLOR.—*British Journal of Photography.*

'We are pleased to find upon trial that the Lens ("Optimns" Rapid Rectilinear) sent for review is really an EXCELLENT instrument.'—*Photographic News.*

PORTRAIT LENS.—'The "OPTIMUS LENSES" are MODERATE in PRICE, and yield most EXCELLENT results.'—*Amateur Photographer.*

SPECTACLES



Best Quality — Glass or Pebbles. Oculists' Prescriptions accuratcly and promptly executed.

POCKET BAROMETERS with scale for Heights, 65/-



PEARL OPERA. 25/-



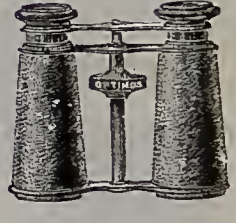
LEATHER OPERA. 25/-

'OPTIMUS' ECONOMIC FIELD-GLASS.



Small Size .. .. ..
Clear Definition .. ..
Good Field of View ..
Magnifying 16 Times ..
} **21/-**

'OPTIMUS' 'SCORER'



is unrivalled for excellence and cheapness. It shows the number of people in Boats four miles distant, sea birds one mile distant, and Bullet-marks on Target at 600 yards. Magnifying 25 times. } **30/-**

'OPTIMUS' SCOUT.



Medium Size .. .. ..
Clear Definitiou .. ..
Good Field .. .. ..
Bullet Marks 5,200 yards ..
High Magnifying Power (64 times) .. .. ..
} **70/-**

'OPTIMUS' BINOCULAR OR DOUBLE TELESCOPE.



This Instrument has Bending Bar for Exact Visual Adjustment .. ..
The Sizo is Moderate .. ..
The Definition is Crisp.. ..
Very high Magnifyiug power (144 times) .. .. ..
} **100/-**

If with Shades as Diagram } **125/-**

For General Excellence, Definition, and Magnifying Power we invite intending Purchasers to test our Field and Opera Glasses against any in the world.

DISCOUNTS TO THE TRADE.

ESTD. 1852.

PERKEN, SON & RAYMENT,

CATALOGUE POST FREE.

99 HATTON GARDEN, LONDON, E.C.

TRADE **'OPTIMUS'** *MARK.*

MANUFACTURE

PHOTOGRAPHIC SUNDRIES (REDUCED PRICES).

Printing Frames (Oak)	4¼ × 3¼	5 × 4	6½ × 4¾	8½ × 6½	10 × 8	12 × 10
Superior finish, round corners, brass springs, per doz.	4/9	6/2	8/9	12/6	18/	27/
Mahogany, superior, per doz.	9/	15/	21/	32/	50/	66/
Light-tight Plate Boxes—						
Mahogany, for 12 plates, per doz.	30/	43/	54/	68/	78/	84/
„ 24 „ „	60/	72/	80/	102/6	144/	180/
Negative Boxes—						
White Wood (to hold 12), per doz.	10/6	12/	18/	22/6	37/6	45/
„ („ 24), „	12/9	13/6	22/6	28/	40/	57/
„ („ 50), „	16/6	21/	28/6	39/	57/	66/
Vignette Glasses	6/6	12/6	18/	25/6	30/	48/
Carriers or Inner Frames—						
For Double Dark Slides, to carry smaller plates, per doz.	15/9	18/	21/	27/	36/	48/

Vulcanite Trays	× 3½	4¾ × 3¾	5¾ × 4½	7 × 5¼	8 × 6	9 × 7	11¼ × 9¼ × 1	13½ × 11¼ × 1½
Price per doz.	5/3	5/9	6/9	8/9	15/	19/	27/	46/
Porcelain Trays	5 × 4	6 × 5	7 × 5	8 × 6	9 × 7	10 × 8	11 × 9	12 × 10	13 × 11	14 × 11
Price per doz.	7/3	8/6	9/3	10/6	12/6	15/	20/	25/	35/	42/
Papier Mâché	4¾ × 3½	7 × 5	8¾ × 6¾	10¾ × 8¼	12¼ × 10¼	15½ × 12¼
Price per doz.	6/9	11/	14/	21/	28/6	45/

Folding Plate Racks—
For draining plates after washing: (to hold 12) 10/3 13/6 18/
„ „ „ (to hold 24) 14/ 18/ 24/

Graduated Glass Measures—	1 dr.	2 dr.	1 oz.	2 oz.	4 oz.	6 oz.	8 oz.	10 oz.	16 oz.	20 oz.	32 oz.	40 oz.
Per doz.	6/	7/6	6/9	8/	10/3	12/9	14/3	15/9	22/3	27/	40/6	45/

Glass Funnels, Ribbed or Plain— Diam. of Top	1½ in.	2½ in.	3 in.	4 in.	4½ in.	5 in.	5½ in.	6 in.	7 in.	8 in.
Price per doz.	3/	3/6	4/	4/6	5/	7/	9/	12/	16/	21/

Cutting Shapes— C.D.V.	4 × 3	Cabinet	6½ × 4¾	8½ × 6½	10 × 8	12 × 10
Price per doz. 5/6	6/	9/6	10/6	22/	36/	48/

'OPTIMUS' CAMERA CASES.

WITH SHOULDER STRAPS.



Lined with Green Cloth.

SQUARE—	½	¼		
Canvas ..	15/9	20/	21/6	
	½	¼	½	½
Leather ..	20/	29/	35/	46/
OBLONG—	¼	½	¼	
Canvas only	10/6	15/	20/	



MAHOGANY RE-TOUCHING DESKS.

Whole Plate, 16/8. 15 × 12 in., 35/6.
Both have the smaller carriers.



PHOTOGRAPHIC HEAD RESTS.

Amateur, to fit on chair, 7/6.
Studio form, 28/



'OPTIMUS PORTABLE' RUBY TENT.

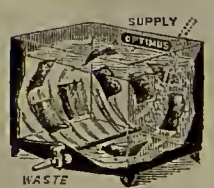
(PATENT) NON-ACTINIC.

Like an umbrella, it folds into a very small space, and can be set up for developing or changing plates as easily as its well-known prototype. Made of two thicknesses of material, one ruby, the other orange colour; no light can enter except it be filtered through these media. The head and hands are introduced so that the operator, sitting in his chair, can conveniently watch the progress of his work whilst the tent rests on the table.

Made in two sizes—

	Dimensions closed.	Price.
For changing plates ..	24 × 3 inches	25/
For developing „ ..	28½ × 3 „	35/

'OPTIMUS' (REVOLVING) PRINT AND NEGATIVE WASHER.

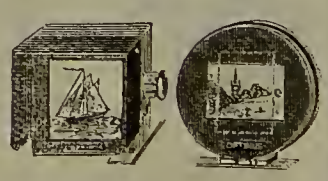


Water is injected from a perforated tube which crosses the bottom of the tank. This force of water creates a revolving current, which carries the Prints over and over in its course. The bottom is slightly V-shaped, and has an outlet.

Prices include grooved metal rack which fits into the tank, and accommodates Negatives, which can also be washed, making the machine efficient for both Negatives and Prints.

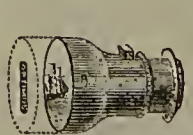
Accommodating Negatives up to ¼-plate, 16/; 10 by 8, 21/; 12 by 10, 30/.

'OPTIMUS' VIEW FINDERS.

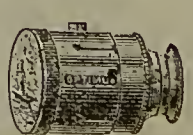


Camera Obscura Model ..	5/ each.
1½-inch bi-concave	2/6 „
2½ „ „	6/ „
3¼ „ „	8/6 „

COMBINED FOCUSSING GLASS AND FINDER.



Bell Shape, 2/



Sliding Adjustment, 5/



Screw Adjustment, 4/

DISCOUNTS TO THE TRADE.

ESTD. 1852.

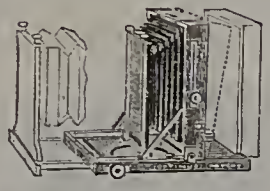
PERKEN, SON & RAYMENT,

CATALOGUE POST FREE

99 HATTON GARDEN, LONDON, E.C.

TRADE **'OPTIMUS'** *MARK.*

MANUFACTURE

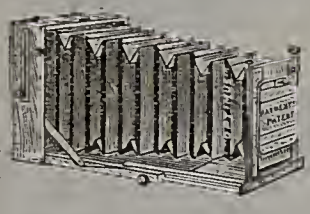


'OPTIMUS' WIDE ANGLE CAMERA (LONG FOCUS).

Price, including 3 Double Dark Slides.

4¼ by 3¼	5 by 4	6½ by 4¾	8½ by 6½	10 by 8	12 by 10	15 by 12
140/-	146/-	165/-	188/-	235/-	288/-	350/-

'This Instrument possesses every possible advantage, being very light, very rigid, and very portable. The focussing screen and body may be brought towards the front of baseboard so as to prevent obstruction when using lenses of wide angular aperture and short focus. It is provided with double swing arrangement and long focussing (rack) adjustment. When closed the lens may remain attached to its proper position (the front) and project through the TURNTABLE in the baseboard.'—*Invention.*

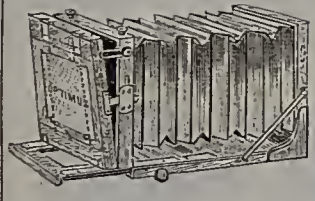


RAYMENT'S *Patent* CAMERA (LONG FOCUS).

Price includes 3 Double Dark Slides.

4¼ by 3¼	6½ by 4¾	8½ by 6½	10 by 8	12 by 10	15 by 12
120/-	145/-	168/-	212/-	258/-	314/-

'The "Rayment" Camera in particular claims attention, both for its BEAUTY OF WORKMANSHIP and for the EASE and READINESS with which it can be put into action.'—*The Camera.*

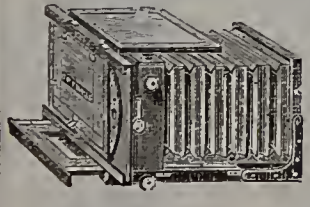


'OPTIMUS' CAMERA (LONG FOCUS).

Price includes 3 Double Dark Slides.

4¼ by 3¼	6½ by 4¾	8½ by 6½	10 by 8	12 by 10	15 by 12
130/	137/-	175/-	227/-	275/-	333/-

'I should strongly recommend Rayment's Camera. It is LIGHT, COMPACT, very RIGID, and extends to about double the usual focus.'—*Amateur Photographer.*

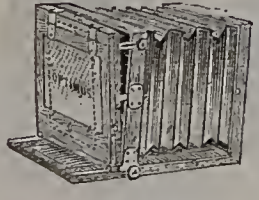


'OPTIMUS' STUDIO CAMERA (LONG FOCUS).

With Repeating Frame, Masks, and one Single Dark Slide, Rack Focussing, and Rack Swing.

6½ by 6½	8½ by 8½	10 by 10	12 by 12	15 by 15
145/-	188/-	225/-	265/-	325/-

'Invited to say if, in our estimation, the Studio Cameras of Perken, Son & Rayment could be improved in any way whatever for the purpose for which they are intended, we must answer, "No!"'—*British Journal of Photography.*



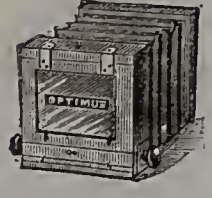
PORTABLE (A.R.) CAMERA.

COMPACT, RIGID, INEXPENSIVE, AND OF EXCELLENT FINISH.

This Instrument has Leather Bellows, and is fitted with hinged Focussing Screen, adjusted by Rack and Pinion, Square Reversing Back, so that horizontal or vertical pictures may be taken without removing Camera from Stand. (Double Swing.)

Price of Camera, including 3 Double Dark Slides.

4¼ by 3¼	5 by 4	6½ by 4¾	8½ by 6½	10 by 8	12 by 10	15 by 12
85/-	87/-	98/-	125/-	150/-	200/-	260/-



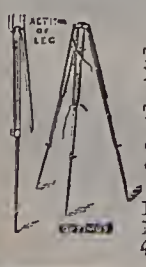
'OPTIMUS' PORTABLE FOLDING CAMERA.

CHEAP, STRONG, SERVICEABLE, AND EFFICIENT.

Durable, Bellows, hinged Focussing Screen with sliding adjustment, readily and securely held in exact position by means of a pinion passing through the body nearest bottom or base board, and having milled head screws on either side of the instrument to clamp tight.

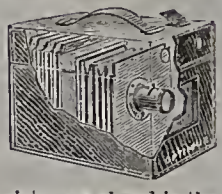
Camera and one Double Dark Slide.

4¼ by 3¼	5 by 4	6½ by 4¾	8½ by 6½
21/-	24/-	39/6	48/-



	¼	½	¼	10
	s. d.	s. d.	s. d.	s. d.
Telescopic, with sliding leg adjustment, rigid ..	8 6	9 6	10 9	16 9
Folding Ash, with Bayonet joint, 'E.P.' very rigid	9 9	10 9	12 6	20 3
Telescopic Ash, with sliding leg adjustment, 'Mandsley' pattern	18 6	19 9	20 9	24 9
Telescopic Ash, 3 fold, as sketch	—	22 0	24 0	29 0
'OPTIMUS' Stand, very rigid, and much recommended for large sizes	—	15 0	16 0	22 6
Pine Studio Stands with rack	—	—	—	43 9
Mahogany " "	—	—	—	78 9
4-fold, very portable, 16 inches when folded ..	—	20 0	25 0	—

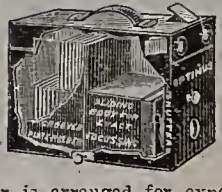
'OPTIMUS' MAGAZINE CAMERA.



Twelve dry plates are placed in the upper portion of the grooved travelling reservoir. The bases of these plates rest upon the top of the Camera body. The grooved reservoir recedes gradually from the Exposure Chamber when the pinion is revolved—allowing one plate at a time to fall in its groove to the bottom half of the reservoir, and so place its sensitised surface within the Exposure Chamber opposite to the Lens, and exactly in true focussing register. The twelve plates may, if desired, be exposed in as many seconds. There is no possibility of the plates sticking. The Shutter is suitable and convenient.

With Rapid Rectilinear Lens, working at F. 8 £6 6 0
With Rapid Euryscope, working at F. 6 .. 7 7 0

'OPTIMUS' DETECTIVE CAMERA.



The Shutter is arranged for exposures of any duration not less than $\frac{1}{150}$ of a second. The Shutter and Camera occupy so little space that six Double Dark-Slides, accommodating twelve Dry Plates, can be carried, in addition to a Focussing Screen. A panel slides up at the end of the box, displaying the screen for focussing. The exactness in focussing is simple, and the position is maintained by a secure clamping arrangement. A similar sliding panel is fitted to the front end, which completely hides the lens. The exterior is covered with leather, and measures 9¼ by 5½ by 7½. (Negatives 4¼ by 3¼.)

Prices same as above.

'OPTIMUS' SETS OF PHOTOGRAPHIC APPARATUS.



Fitted complete in Cabinet, with Tripod Stand.

Quarter Plate Size (1¼ × 3¼)	£1 16 0
Half Plate Size (6½ × 4¾)	3 10 0
Quarter Plate Size (4¼ × 4¼) as diagram ..	2 5 0
Half Plate Size (6½ × 4¾)	5 0 0
Superior Camera, Rack and Pinion Focussing Adjustment—	
Superior Quarter Plate (4¾ × 3¼)	3 8 0
" Half Plate (6½ × 4¾)	5 15 0
" Whole Plate (8½ × 6½)	9 10 0

DISCOUNTS TO THE TRADE.

ESTD. 1852.

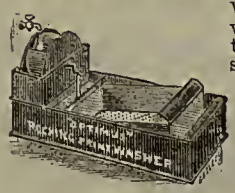
PERKEN, SON & RAYMENT,

CATALOGUE POST FREE.

99 HATTON GARDEN, LONDON, E.C.

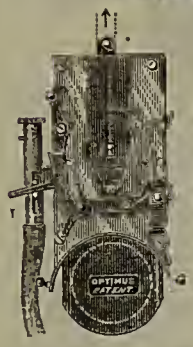
TRADE 'OPTIMUS' MARK.

'OPTIMUS' ROCKING PRINT WASHER.



Water running from a tap revolves the wheel which is connected with the cradle, causing it to rock up and down with each revolution. A syphon is fitted to drain the tank. One hour's washing is ample.

9 in. × 7 in. cradle	..	..	..	18/6
11 in. × 9 in. „	..	..	..	28/
13 in. × 11 in. „	..	..	..	32/
16 in. × 13 in. „	..	..	..	39/6
20 in. × 16 in. „	..	..	..	50/



'OPTIMUS' BETWEEN-LENS SHUTTER

Is arranged to fit the lens mount like a saddle Exposure is effected by a plunger working between the two combinations of a double lens, or in front of them if preferred. Both pneumatic and hand releases are provided. Exposures varying from $\frac{1}{75}$ of a second to prolonged may be attained. The working parts are strong, and derangement impossible with a reasonably careful operator. Weight and bulk are reduced to a minimum.

Prices same as below.

'Optimus' Plunge Shutter (Patent).

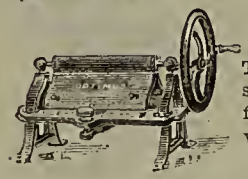
'Mr. J. Traill Taylor exhibited a pneumatic shutter giving exposures of any duration at will, and avoiding all vibration. There was also a small trigger by which exposures could be made. He stated it was one of the best shutters he had seen, and, in reply to a question, said it was made by Perken, Son & Rayment.'—*British Journal of Photography.*



This may be styled the most **PORTABLE** of shutters. It is made either to fit on the hood or may be adapted to act between the lenses of a doublet.

To fit ¼ or ½ plate 'Optimus' Lens 30/ { Complete with Pneumtic Release.
„ ½ „ „ „ 36/
„ 10 × 8 or 12 × 10 „ 48/

'Optimus' Burnishers for Prints

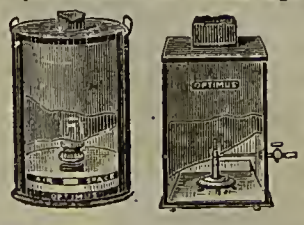


The Burnishing Bar is specially hardened. The Frame is of superior and convenient construction. It is Nickel-plated, and of beautiful finish. Each instrument is mounted on a table, with legs.

	¼ plate	½	1	10 × 8	12 × 10	15 × 12
Price	20/	30/	36/	45/	60/	90/

'Optimus' Lamps for Dark Room.

Superior Lantern, rivetted and turn-over joints fitted with 'Gas Jet,' (or with powerful Paraffin argaud burner) adjustable on the outside.



The form of Lantern shown in the accompanying diagram presents a great many advantages. Plenty of air circulates. In front is a sheet of ruby glass (removable), behind which is a sheet of deep orange; it is therefore safe when developing the most sensitive of Plates. As development progresses the ruby gloss can be raised and the Negative examined by the orange glass only, enabling the amount of detail to be readily judged,

each 13/
Half-round Lamp as below, each.. .. .. 7/6



FOLDING LAMP.—An inexpensive form of Lamp, having two sides of metal, and the third of red glass. The metal sides are hinged together, so that they fold up for travelling, with the ruby glass protected from fracture by lying between them. Top and bottom triangular pieces—one forming a candle-holder and the other a chimney—complete this clever little arrangement, per dozen 30/

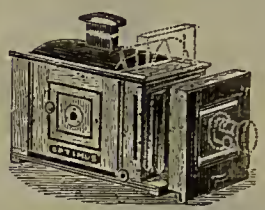
REDDING'S PATENT PORTABLE LAMP.

Small, 40/; Medium, 54/; and Large, 72/ per dozen.
CANDLES for above, Small, 28/; Large, do., 42/ per gross.

'OPTIMUS' ENLARGING APPARATUS.

This Apparatus comprises superior Mahogany Body Lantern and long Bellows. Camera adjusted by PATENT QUICK ACTING RACK and Pinion. The Lantern is fitted with powerful Refulgent Lamp, with 3 wicks, giving brilliant illumination. Compound Condensers.

CONDENSER.	*If with Russian Iron instead of Mahogany Body.*		
5-in. no front lens	100/-	5-in. no lens	75/-
5-in. with „	127/-	5-in. and „	102/6
6-in. no „	133/-	6-in. no „	87/6
6-in. with „	151/-	6-in. and „	115/3
7-in. no „	155/-	7-in. no „	110/-
7-in. with „	173/6	7-in. and „	137/9
8-in. with „	256/-	8-in. no „	160/-
9-in. with „	290/-		210/-
10 in. with „	360/-	10-in. „ „	285/-
12-in. with „	580/-	12-in. „ „	450/-



'OPTIMUS' MAGIC LANTERNS.

Adapted for use with Limelight. For dissolving, 2 Lanterns are necessary.

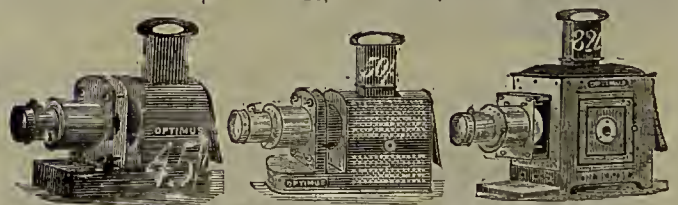
Each Magic Lantern is efficient for exhibitions. The Lens gives crisp definition, being a superior Achromatic Photographic Combination (large diameter black lens), with rack and pinion. It is fitted to a telescopic lengthening tube, so gaining increased focal accommodation. The Condenser is composed of two plano-convex lenses of 4 inches diameter. The refulgent lamp has 3 wicks (or 4 wicks 2/ extra), yielding a brilliantly-illuminated picture. Each is complete in box.



Japanned Metal Body, **30/.**

Students' Lantern (to take demonstrating tank), with finished Brass Sliding Tubes **40/.**

Mahogany outside Body, Japanned Metal Stages, and Sliding Tubes, **42/.**



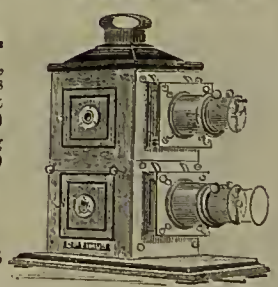
Russian Iron Body, Brass Sliding Tubes, **45/**

Perforated Russian Iron Body, Brass Sliding Tubes, **50/**

Mahogany outside Body, Panelled Door, Brass Stages, and Sliding Tubes, **82/**

'OPTIMUS' BI-UNIAL LANTERN.

Panelled Mahogany Body and Moulded Foot, picked out with Black, Japanned Stages and Tubes, Achromatic Photographic Front Lenses, Compound Condensers **£5 12 0**
Ditto, with Brass Stages and Sliding Tubes **£8 8 0**



'OPTIMUS' TRIPLE LANTERN.

All Brass Mounts **£14 10 0**

Lantern Photographs—Plain, 12s.; Coloured, 18s. 6d. doz.

'OPTIMUS' MAGNESIUM RIBBON LAMP, 5/-



British Journal of Photography, Nov. 7th, 1888:—"It is a neat little thing, not greatly exceeding the dimensions of an old-fashioned watch, and projects a *powerful* beam of *light*."

'In Daylight, Gaslight, Sunshine, Rain,
Each faithful "Demon" works the same,
And fills with Life the Album page,
While Five-Guinea Cameras groan with rage.'

THE "DEMON" CAMERA

DEFIES DETECTION, and can be secreted UNDER THE VEST, in the WATCH POCKET, or concealed IN THE GLOVE. It is made entirely of metal, BEAUTIFULLY PLATED and weighs UNDER 3 oz. No movement is too rapid for it—the RACEHORSE at greatest speed, the FLIGHT OF BIRDS, even the LIGHTNING FLASH itself. By merely pressing the trigger the Photograph is taken; therefore ANY PERSON CAN USE IT,

NO KNOWLEDGE OF PHOTOGRAPHY BEING NECESSARY,

for, unlike other cameras, it requires *no* focussing, *no* stand, *no* adjustment, *no* dark slides; yet HUNDREDS OF PLATES can be carried and exposed in rapid succession.

READ THE FOLLOWING:—

91 Newsham Drive, Liverpool.

Dear Sir,—Your "Demon" Detective Camera is the most wonderful and ingenious camera ever manufactored, and I cannot understand how it can be made for the money I am a member of both the Liverpool and Birkenhead Photographic Societies, and will gladly distribute circulars respecting it amongst the members. Yours truly, G. M. NOOKES.



THE "DEMON" CAMERA

depicts the hypocrisy of life and frivolities of fashion, unknown to its victims. Can be used on the promenade, in law courts, churches, and railway carriages; also in breach of promise and divorce cases; in fact, at all awkward moments, when least expected. The artful maiden, the wily detective, the wronged wife will now collect damning evidence. The bad boy will levy blackmail upon his sisters by illustrating family squabbles instead of angelic sweetness, and human happiness will now be within the reach of all.

READ THE FOLLOWING:—

14 Wighton Road, Anerly.

Dear Sir,—I bought one of your "Demon" Cameras in Glasgow, and am highly delighted with it. I obtained three instantaneous pictures from the window of the Great Northern Express travelling at fifty miles an hour, and they are perfect. Please send some of your lists, as my friends will not believe my negatives are produced with a five-shilling camera.
S. STEVENS.

NOTE.—Apparatus, including Plates, Chemicals, and Instructions, Post-free, 5/6; extra Dry-Plates, 9d. per doz. (6 doz. 4/).

IMPORTANT NOTICE.

All purchasers of the "Demon" Camera are entitled to receive, for 5*s.* extra, our "DEMON" ENLARGING APPARATUS. This includes a japanned-iron Lantern, with powerful lamp and reflector, plated focussing tubes, extending table, and exposure frame, and instructions for use. By the aid of this apparatus the "Demon" negatives can be enlarged to Cabinet or Club portrait size, or reduced to microscopic miniatures. Thus for an outlay of 10*s.* 6*d.* you obtain the most marvellous and complete outfit ever introduced for enjoying the fascinating Science of Photography in all its latest developments.

TO CHEMISTS, FOREIGN BUYERS, AND EXPORTERS.—We are the Cheapest Camera Makers in the World, the cheapest for Dry-Plates and all Photographic Sundries. Write for our Illustrated Lists and Trade Discounts before purchasing elsewhere (business card). Remember we are bonâ fide manufacturers.

SCIENTIFIC NOVELTY DEPARTMENT.—We manufacture 500 Mechanical, Electrical, Chemical, Optical, Magical Novelties, sold by Opticians and Chemists all over the world.

Address Manager, CD Department,

AMERICAN CAMERA COMPANY, 397 and 399 EDGWARE ROAD, LONDON, W.

BOTWRIGHT & GREY

(Late A. H. BOTWRIGHT. Established 1865),

MANUFACTURING OPTICIANS, Wholesale and for Exportation only, **13 SPENCER ST., CLERKENWELL, E.C.**

SPECTACLES AND **EYEGLASSES** Of every description,



FIELD, OPERA, AND **MARINE GLASSES, TELESCOPES, &c.**

MASON'S IMPROVED OPTOMETER (Registered), 17s. 6s. each nett.
Great saving of time by testing defective sight with this instrument. Sketch on application.

Specialities in Clinical Thermometers with indestructible indexes—half minute and lens front, &c.

OPHTHALMIC SURGEONS AND HOSPITAL PRESCRIPTIONS ACCURATELY PREPARED.



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1 & 2 RED LION SQUARE, LONDON, W.C.

(To avoid mistakes please carefully note style of firm and address.)

THE LARGEST IMPORTERS,
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QUOTING THE LOWEST PRICES.

NEW SEASON'S SPONGES: SPECIAL.

The largest and best parcels have been secured by CRESSWELL BROTHERS, under the supervision of their Senior Partner, at the Mediterranean Fisheries.

CRESSWELL BROTHERS are enabled to quote for ALL qualities prices which are emphatically the LOWEST IN THE TRADE.

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CRESSWELL BROTHERS' IMPORTS Percentage on Total Value	33 %
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SPONGES BY THE CASE, BALE, BIN, STRING, BOX, CARD, POUND, OR PIECE.

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DRUGGISTS' SUNDRIESMEN.

GILBERTSON'S REGISTERED DISPENSING BOTTLE.

Rd. No. 118583.



PRICES.

1	1½	2	3	4	6	8	10	12	16	20 oz.	
10/6	10/6	10/6	11/6	11/6	13/0	13/0	20/6	20/6	23/6	30/0	Green, per grs.
10/9	10/9	11/6	12/6	13/0	15/6	15/6	24/0	24/0	27/0	34/6	White, ,,

IN CRATES (about 6 Gross Assorted).

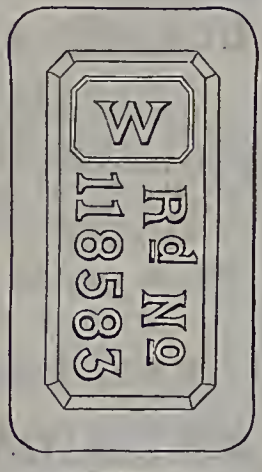
Not less than 1 gross of a size.

1	1½	2	3	4	6	8	10	12	16	20 oz.	
9/9	9/9	9/9	11/0	11/0	12/0	12/0	19/6	19/6	22/0	28/0	Green, per grs.
10/3	10/3	11/0	12/0	12/6	14/9	14/9	23/0	23/0	26/0	33/6	White, ,,

CRATES AND CARRIAGE FREE.

Casks for EXPORT are charged, but delivered F.O.B.

NAME PLATES EXTRA, AT USUAL RATES.



FACSIMILE OF BOTTOM OF BOTTLE.

This Bottle is made with rounded corners without altering its flat surfaces, which not only adds to its appearance but reduces breakage to a minimum, *ensuring accurate capacity, simplifying labelling*, and producing a perfect appearance when wrapped.

ANY OF THE ABOVE BOTTLES ARE SUPPLIED WITH FLAT, GLOBE, OR CUT GLOBE STOPPERS.

GILBERTSON'S Bottle Eye Bath, 8/ dozen.
GILBERTSON'S Cherry Tooth Paste, 3/9 and 7/ dozen.
GILBERTSON'S Court Plaister and Gold Beaters' Skin, all sizes.
GILBERTSON'S Graduated Feeding Bottles, 3/9, 7/6, 12/ dozen.
GILBERTSON'S Registered Flat Feeding Bottles, complete, 8/ & 10/ doz.
GILBERTSON'S Cocaine Sprays, nickel mounts, 36/ & 42/ dozen.
GILBERTSON'S Tooth, Nail, Shaving, and Hair Brushes.
GILBERTSON'S Cut Smelling Bottles in great variety.
GILBERTSON'S Enemas, "Special" 36/ dozen, "Long Canula" 54/ doz.
GILBERTSON'S "Perfect" Inhalers, 18/ dozen.
GILBERTSON'S Stoppered Bottles in boxwood cases.

DEPOT FOR ROURE-BERTRAND FILS' PERFUMES IN 1-LB. BOTTLES.

PRICES SUBJECT TO THE FLUCTUATIONS OF THE MARKET

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Are open to make special arrangements with Country Proprietors to hold stock in London of their Proprietary Articles.

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BUYERS ARE CAUTIONED TO SEE THAT THEY GET THE

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Which may be known by the Name of the Inventor being on the Government Stamp.

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AMERICAN BUYERS are particularly Cautioned ! !

Telegraphic Address—"FEEDING BOTTLES LONDON."



FEVRE'S

SELTZOGENES.

	2 PINT.	3 PINT.	5 PINT.	8 PINT.
Caned, each	7/	8/	12/5	20/9
Wired, each	6/6	7/9	11/9	18/11

£2 worth or more, 5 per cent. discount.

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"MAY-ROBERTS" WATER BATH,

REGISTERED.



This Water Bath will supply a long-felt want amongst Chemists and Perfumers, where small quantities of materials have to be dealt with.

The **old form** of Water Bath necessitates the use of a **second vessel** for pouring the melted **Pomade, Cream,** or other substance into the bottles or jars in which they are sold. In the **"MAY-ROBERTS" Water Bath** the earthenware bowl can be lifted out of the tin containing the boiling water, the process of cooling being thereby very much expedited, and the contents can be **poured** into the **bottles or jars direct from the bowl.** The Bath is also supplied with an earthenware cover.

1 PINT.	5 PINT.	10 PINT.	[1]
Each 3/0	5/6	9/6	

MAY, ROBERTS & CO.

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GREAT REDUCTION IN PRICE.



We have recently been entrusted with a most important Agency for the above-named goods. Our Principals are the best known firm in Paris, and the Syphons are undoubtedly the cheapest and strongest in the market. The tops are made of pure English Tin, guaranteed free from lead. The Seltzogenes are made on the well-known "Fevre" system, and each one is thoroughly tested before being sent out.

WE CAN GIVE TO LARGE AND SMALL BUYERS EXCEPTIONALLY LOW PRICES.
PLEASE WRITE US AT ONCE FOR PRICES, STATING QUANTITY OF EACH KIND REQUIRED

SODA-WATER MACHINERY.

MELBOURNE EXHIBITION, 1889, UNPRECEDENTED SUCCESS.

We have obtained at the above Exhibition

3 HIGHEST AWARDS POSSIBLE

A feat never accomplished before by any other house supplying requirements for the Aërated Water Trade.

These awards will carry with them THREE GOLD MEDALS, which were awarded as follows:—

1st—SODA-WATER MACHINERY (Highest Award possible).
1st—ESSENTIAL OILS & FRUIT ESSENCES (Highest Award possible).
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WRITE FOR NEW ILLUSTRATED CATALOGUE, POST FREE.

BRATBY & HINCHLIFFE, LIM.

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HAY'S HOP ALE ESSENCE

REGISTERED TRADE MARK.

FOR THE MANUFACTURE OF THE FINEST AERATED HOP ALE.

Is made from the Choicest Hops Grown.

HAY'S HOP ALE ESSENCE

"Supplies an excellent stomachic, appetising, and agreeable summer drink."
Brewers' Journal.

"A beautiful essence, has a fine **Hop Aroma**, and is quite a pharmaceutical triumph."
The Chemist and Druggist.

"For this Essence a brilliant future may be anticipated. It possesses characteristics very seldom to be met with."
Mineral Water Trade Review

"For flavour, strength, and real solubility, this Essence leaves nothing to be desired."
British & Colonial Druggist.

TRADE MARK



HAY'S HOP ALE

"This is an excellent Non-Alcoholic beverage."
The Lancet

"Evolves a delicious aroma of **Hops.**"
Medical Press.

"It is a **Fine Bitter Beer**, pouring out with a **rich creamy head.**"
British & Colonial Druggist.

"Possesses the Aromatic bouquet and pleasant flavour of the **genuine Hop.**"
Mineral Water Trade Review

"Is a nearer approach to Bass or Allsopp's Ale than any non-intoxicants preceding it."
Eastern Morning News.

Trade Price, 8s. 6d. per lb.; 12 lbs. and upwards, 8s.

Quantity required, two fluid oz. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S HOP ALE ESSENCE

FOR THE MANUFACTURE OF THE FINEST AERATED HOP ALE.

"Since Mr. HAY, the well-known Manufacturing Chemist, of Hull, surprised the Pharmaceutical world, some ten years since, by the production of hat, until then, had been thought an impossibility, viz., a perfectly soluble and transparent **ESSENCE OF GINGER**, nothing he has done has attracted so much attention in this direction as his latest **ESSENCE OF HOPS**, which, like his other **Essences**, is a production unique in itself. The **HOP ALE** made from this Essence evolves a **DELICIOUS AROMA OF HOPS**, and supplies that much longed-for desideratum of abstainers, '*A Glass of Non-Alcoholic Beer.*' We have always felt that teetotallers laboured under a disadvantage that ought not to exist, in having no really decent beverage *in the place of Wine and Beer.* By this Pharmaceutical triumph of Mr. HAY, this difficulty has been overcome, and it affords us much pleasure to commend this truly **Temperance Drink** to the notice of abstainers and non-alcoholic abstainers alike."
—*Medical Press.*

HAY'S HOP ALE ESSENCE [1]

"I certainly remarkable for the purity and reality of its results. Made from the choicest hops, and treated in a manner of which Mr. HAY appears to possess the monopoly, this **HOP ALE ESSENCE** supplies an excellent stomachic, and an agreeable stimulating **Summer Drink.** The **HOP ALE** produced by this **ESSENCE** is of a most refreshing and invigorating character, with all the appetising flavour and delicate aroma of its more intoxicating prototype, which it approximates more closely than any similar preparation we have yet tasted. It may be advantageously taken up as a speciality for which a large consumption may safely be predicted."—*Brewers' Journal.*

W. HAY, Manufacturing Chemist, Beverley Road, HULL, ENGLAND.

TO AERATED WATER MANUFACTURERS

HAY'S SOLUBLE ESSENCES

REGISTERED

ARE GUARANTEED TO BE THE FINEST IN THE MARKET.

HONOURABLE MENTION: INTERNATIONAL FOOD EXHIBITION, AGRICULTURAL HALL, LONDON, OCTOBER, 1880.

GOLD MEDAL: SOCIETY OF ARTS, PARIS, 1883.

HAY HOP ALE ESSENCE.

"Supplies an excellent stomachic, appetising, and agreeable summer drink."—*Brewers' Journal.*

"For this Essence a brilliant future may be anticipated. It possesses characteristics very seldom to be met with."
—*Mineral Water Trade Review.*

HAY'S HOP ALE.

"This is an excellent Non-alcoholic beverage."
—*The Lancet.*

"Evolves a delicious aroma of Hops."
—*Medical Press.*

TRADE MARK



REGISTERED

GINGER CHAMPAGNE.

(Made from Hay's Essence.)

"An excellent and most agreeable beverage."
—*The Lancet.*

"Mr. Hay has caught the fine Aroma of Ginger with remarkable success. It is equally sparkling but more refreshing than its rival—the Royal French Beverage."—*The Chemist and Druggist.*

GINGER ALE.

(Made from Hay's Fortified Essence.)

"It pours out with as fine a 'head' as any glass of Ale, and possesses all the fine aromatic flavour of the pure Ginger."
—*The Chemist and Druggist.*

HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER,

No. 1.

A Pure Essence of the Finest Ginger.

Trade price, 5/- per lb.; 12 lbs. and upwards, 4/6

HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER

No. 2.

Trade price, 4/6 per lb.; 12 lbs. and upwards, 4/-

HAY'S COMPOUND FORTIFIED ESSENCE OF JAMAICA GINGER

No. 1.

For First Quality Ginger Ale. Imparts an exquisite Ginger Aroma.

Trade price, 5/6 per lb.; 12 lbs. and upwards, 5/-

Quantity required, 4 fl. oz. to each gallon of Syrup, making 106 10 oz. bottles.

HAY'S FORTIFIED ESSENCE OF JAMAICA GINGER,

No. 2.

Trade price, 4/6 per lb.; 12 lbs. and upwards, 4/-

Quantity required, 2 fl. oz. to each gallon of Syrup, making 106 10-oz. bottles

HAY'S GINGER ALE EXTRACT,

For Second Quality Ginger Ale.

Imparts PUNGENCY, COLOURING, great BRILLIANCY, and an unusually FINE GINGER FLAVOUR and AROMA.

Trade price, 4/6 per lb.; 12 lbs. and upwards, 4/-

Quantity required, 3 fl. oz. to each gallon of Syrup, making 106 10 oz. bottles

HAY'S GINGER ALE ESSENCE,

For Third Quality Ginger Ale.

This Essence makes a beverage which is unsurpassed by the so-called finest Belfast Ginger Ale.

Trade price, 9/- per lb.; 12 lbs. and upwards, 8/6

Quantity required, ½ fl. oz. to each gallon of Syrup, making 106 10-oz. bottles.

HAY'S GINGER CHAMPAGNE ESSENCE,

(For the manufacture of Ginger Champagne).

This Essence is a combination of the finest flavours, and imparts with the Ginger a most exquisite Aroma.

Trade price, 8/- per lb.; 12 lbs. and upwards, 7/6

HAY'S HOP ALE ESSENCE,

(For the Manufacture of the finest Aërated Hop Ale).

This Essence is made from the CHOICEST HOPS GROWN, and is unrivalled for its peculiarly fine HOP FLAVOUR and aroma. HOP ALE made from this Essence has the full flavour of the FINEST HOPS, and is a really APPETISING BITTER BEER.

Trade price, 8/6 per lb.; 12 lbs. and upwards, 8/-

Quantity required, 2 fl. oz. to each gallon of Syrup, making 106 10-oz. bottles.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS,

No. 1.

Highly Concentrated. A Magnificent Preparation.

Trade price, 8/6 per lb.; 12 lbs. and upwards, 8/-

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS,

No. 2.

Makes an exquisitely fine Lemonade.

Trade price, 6/6 per lb.; 12 lbs. and upwards, 6/-

HAY'S LEMON FLAVOUR,

No. 1.

Makes a delicious Lemonade, to which it imparts all the FINE AROMA AND FLAVOUR of the Choicest Lemons.

Trade price, 5/- per lb.; 12 lbs. and upwards, 4/6

HAY'S LEMON FLAVOUR,

No. 2.

A very fine Essence, prepared from the fresh fruit.

Trade price, 4/6 per lb.; 12 lbs. and upwards, 4/-

For Orange, Vanilla, and all other Essences, send for Price List.

W. HAY, MANUFACTURING CHEMIST, BEVERLEY ROAD. HULL.

The difference between preparations made from HAY'S ESSENCES and those made from the numerous SPURIOUS IMITATIONS of them bearing the name of SOLUBLE ESSENCES is most marked, and no manufacturer using the latter can compete with one using HAY'S PREPARATIONS, as is universally known.

Indentors, to prevent disappointment, should specify that the goods are to be of HAY'S Manufacture.

MERCHANTS, SHIPPERS & AGENTS

INDENTORS SHOULD SPECIFY OUR MANUFACTURE.

Soluble & Fruit Essences, Essential Oils, Colours,

And all requisites for the AERATED WATER TRADE

DUCKWORTH & CO.

AND 102. FENCHURCH ST. LONDON. Manufacturing Chemists Corporation St. MANCHESTER. ENG.

INDENTORS SHOULD SPECIFY OUR MANUFACTURE.

Our Preparations are SPECIALLY Manufactured to meet the Requirements of the EXPORT TRADE.

"PREMIER BRAND"

ESSENTIAL OILS.

Concentrated Fruit Essences—Soluble

MANUFACTURED BY

JOHN CUMMOCK

Who has received Hundreds of Unsolicited Testimonials, also THREE GOLD MEDALS, besides other Honours.

Chemists manufacturing their own Aërated Drinks should write for Prices and Samples of the following:—

ESSENCE "SPARKLING LIMETTA"—Soluble "Essence of Lemon"
ESSENCE "LEMON SQUASH"—Essence for Sherbet
ESSENCE "TONIC HEADING"—Essence for Ginger Ale

AND COMPARE WITH OTHER MAKERS.

Manufactory & Offices: 45 ROPE WORK LANE, GLASGOW.
LATE 32 MAIN STREET.

KINMOND'S

Royal Leamington

APNEUMATIC

TABLE WATERS

Were first supplied to H.M. the Queen in 1856, and to H.R.H. the Prince of Wales in 1862.

KINMOND'S

GINGER ALE,

AND ALL THEIR OTHER WATERS,
Are UNRIVALLED for PURITY and QUALITY.
In Ordinary Bottles and Syphons.

MANUFACTORY—

LEAMINGTON.

Send for Trade List and Compare Prices.

SEE

NEWBALL & MASON'S

INSERT

(between pages 32 and 33 of this issue)

DRAWING ATTENTION

TO

THE ORIGINAL

Extract of Herbs

AND

Wine Essences.

BY SPECIAL APPOINTMENT TO

H.R.H. THE DUKE OF CONNAUGHT

AND THE ROYAL FAMILY.

BOURNE WATERS.

THE PUREST IN ENGLAND.

Soda, Potash, Lithia, and Seltzer Waters, Lemonade, and Aromatic Ginger Ale,

IN 4-DOZEN AND 6-DOZEN CASES, CARRIAGE PAID,

Prepared with the celebrated Artesian Well Water from a great depth—neither pumped, cisterned, nor exposed to the atmosphere and FREE FROM ALL CONTAMINATION.

The Natural Water sent out in QUARTS and PINTS for the use of Families as a TABLE WATER direct from the Spring without any exposure to the Air.

MANUFACTURERS:

R. M. MILLS & CO., BOURNE, LINCOLNSHIRE.

SOLD BY THEIR AGENTS THROUGHOUT ENGLAND.

Messrs. INGRAM & ROYLE, 52 Farringdon St., Wholesale Agents for the Sale of our Waters.

TRADE "CAMWAL." MARK

The Chemists' Aërated & Mineral Waters Association, Limited,

LONDON, HARROGATE, & BRISTOL.

This, the ONLY Company that supplies EXCLUSIVELY to CHEMISTS and HOSPITALS manufactured Mineral Waters of the highest class, and of specified formula, now numbers over **2,000** members. Good dividends.

PRICES.

	At per dozen	
	Bottles	Syphons
Carbonated Water		
Soda Water, 5 grains to ½ pint ...		
„ B.P., 15 „ „ ...		
Pot. Water, 5 „ „ ...		
„ B.P., 15 „ „ ...		
Seltzer Water...	**1/-**	**1/6**

	At per dozen	
	Bottles	Syphons
Lemonade...		
Ginger Ale		
„ Beer		
Lime Juice	**1/**	**2/6**
Lithia Water	**1/6**	**2/6**

Sparkling Rubine ... ... } At **2/6** per dozen in Pint Champagne Bottles.
Zeodone ... ... } Bottles included.

3*d*. per dozen charged for carriage on Syphons in London. [2]

SAMPLES AND HANDBILLS FREE.

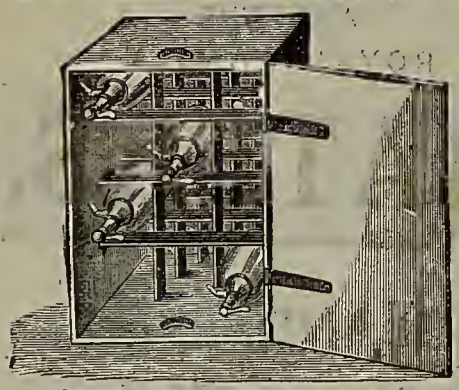
NATURAL MINERAL WATERS SUPPLIED AT LOWEST PRICES.
For particulars apply to the Secretary, Gifford Street, London, N.

JOHN OWEN, Junior,

PACKING CASE MANUFACTORY AND STEAM SAW MILLS.

ESTABLISHED 1840.

37 & 38 MINORIES, LONDON, E.C.



MANUFACTURER OF
Cases of every description for Home use and Exportation.
Wine Laths, Oak and Deal.
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Bottle Crates. Straw Envelopes.
Cases Lined with Tin, Zinc, Copper, &c.;
ALSO MANUFACTURERS OF THE
"Acme" Incubator & Poultry Appliances.



PRICE LISTS FORWARDED ON APPLICATION. *EXPORT ORDERS RECEIVE SPECIAL ATTENTION.*

SPRAY PRODUCERS

For quotations of all descriptions see Druggists' Sundries List of undersigned.

See Advertisement, page 25.

EVANS, SONS & CO.

LIVERPOOL.

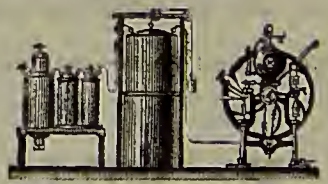
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CANADA: EVANS AND SONS, LD. Montreal, Toronto; and Victoria, British Columbia.

AERATED WATER MACHINERY.

SYPHONS.





Intermittent Apparatus ... ... from £17
Continuous „ ... ... „ £40
Syphons, first quality ... ... „ 1s. 8d.

WRITE FOR OUR No. 6 TARIFF.

PRUDON & DUBOST, 210 Bd. Voltaire, PARIS.

TELEPHONE, No. 7522 TELEGRAPHIC ADDRESS—"IDRIS KENTISH TOWN."

IDRIS & CO.

The Largest Syphon Fillers in the United Kingdom.

SODA. Brilliant, Pungent, and Sparkling.

POTASH. Prepared according to the British Pharmacopœia.

SELTZER. Pure and Delicious Table Water.

LITHIA of guaranteed strength.

LEMONADE. Pure fruity flavour of ripe Lemons.

PURITY. Water filtered by a special process, by which absolute purity is guaranteed. Distilled water used as required. Pure Chemicals only employed. All Goods are regularly subjected to strict analysis.

ELEGANT SYPHONS. Best Block Tin or Silver-plated Tops. IDRIS & Co. make their own Syphons, and can therefore guarantee freedom from deleterious metal.

LOWEST PRICES for Water, both in Syphons and Bottles. Write for Price List.

PROMPT DELIVERY by our Vans in London and Suburbs. Customers called on regularly once or twice a week. Country orders despatched same day as received.

IDRIS & CO. now supply a larger number of the London Hospitals, Public Institutions, and Chemists, than any other Manufacturers, which is in itself a sufficient guarantee of the excellence and purity of the Waters supplied by them.

"I have examined the Mineral Waters prepared by IDRIS & CO., and find that in regard to Chemical purity and brilliancy, they are unsurpassable."

JAMES EDMUNDS, M.D., M.R.C.P. Lond., &c.

Medical Officer of Health and Public Analyst to St. James's, London.

IDRIS & COMPANY,

KENTISH TOWN, LONDON, N.W.

NEW ESS. LEMON

W. J. BUSH & CO.'S "SPECIALITY."

PHENOMENAL SUCCESS!!!

IT was our pleasure this time last year to inform our numerous friends, and the trade generally, that we had, after considerable difficulty, succeeded in opening a manufactory in Messina for the manufacture of Sicilian Essences. The reason of our taking so bold a stroke was due to our finding it practically impossible to obtain from any of the usual sources regular supplies of absolutely pure Essence of Lemon, made from the finest fruit.

By making the Essences ourselves on the spot, we were enabled last season to offer to the trade **a quality that had never been seen before in this or any other market!**

Notwithstanding the great opposition we had to encounter, combined with the somewhat libellous statements that were made by our competitors, both here and at Messina—caused through common jealousy—the trade has appreciated our efforts and our success in being able to offer them an Essence so superior in quality, that **never before have we sold so large a quantity.** Through this fact we are pleased to inform our friends that it has been necessary for us to take another manufactory in **Villaggio Gazzi, Messina,** which is no less than **three times the size of the one in Strada Antico Cimitero.**

We are now in a position to state that we have **the largest manufactory of Sicilian Essences;** which is situated in the centre of Orange and Lemon Groves, whence we have arranged to obtain our supplies of fruit. The quality of our Essence is exceptionally fine this year, and we are confident that when you see our samples you will agree with us, that they are by a **long way the finest to be obtained.**

With regard to the crop, we believe it will be a very fair average one, but as the price of Essence Lemon is so exceptionally low, there is no room for a further fall below that of last season; besides, the price of Lemon Juice is at an unprecedented low figure, which, of course, must maintain the price of the Essence. However, as the duration of the crop is from three to four months, no definite estimate of the total yield is yet possible.

One of our partners is now in Messina superintending the manufacture.

W. J. BUSH & CO.

ARTILLERY LANE, LONDON.

Address

TELEGRAMS
"ESSENCES"
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97 PORT ST
AND ANCOATS ST.

FITZSIMMONS AND FEARNLEY

MANUFACTURING CHEMISTS

MANUFACTURERS AND IMPORTERS OF

ESSENTIAL OILS

SPECIALLY PREPARED FOR

MINERAL WATER MANUFACTURERS
AND
CONFECTIONERS

MANUFACTURERS OF HIGHLY CONCENTRATED

SOLUBLE FRUIT ESSENCES

MANCHESTER



JEWSBURY & BROWN'S
(MANCHESTER)

SPARKLING TABLE WATERS,
UNRIVALLED FOR PURITY AND QUALITY.

SODA WATER.
SELTZER WATER.
POTASH WATER.
LITHIA WATER.
SIMPLE AËRATED WATER.



LEMONADE.
GINGER ALE.
QUININE TONIC.
GINGER BEER.
HOREHOUND BEER

EXTRACTS FROM ANALYTICAL REPORTS.

"The examination of the Waters which I have made has satisfied me that they have been prepared with the greatest care, and are of excellent quality."
FRANCIS JONES, F.R.S.E., F.C.S.

"On the whole, I have no hesitation in stating that your Aërated Waters are of the highest standard of purity which is practically attainable."
LOUIS SIEBOLD, F.I.C., F.C.S.

"The Lemonade is, for flavour and general excellence, superior to any similar compound which I have examined, and contains no acid but *Citric Acid*.

"I took a sample of the water used in your manufactory, in the preparation of the Aërated Waters, and found it, as was the case with the completed compounds, entirely *free* from lead, copper, or *any injurious* matter whatever."
C. ESTCOURT, F.C.S., F.C.I.

J. & B.'s Syphons are mounted with PURE BLOCK TIN, thus ensuring absolute immunity from dangerous metallic contamination.

CARRIAGE PAID AND ON RETURNS.

113 MARKET STREET, and 44 DOWNING STREET, MANCHESTER

NATURAL ARSENIO-FERRIC MINERAL WATERS OF

LEVICO
SOUTH TYROL.

DOSE—One Tablespoonful mixed with Seltzer or Red Wine three times a day.

Price per dozen Bottles, 12/ net; price per 100 Bottles, 86/ net. *Delivered free on rail London.*

They are particularly valuable in the treatment of Anæmia, Chlorosis, Syphilis, Skin Diseases, Menstrual Disorders, Scrofulous Diathesis, and most especially Nervous Affections of all kinds.

To be had of all Chemists and Druggists.

Agency, 24 Coleman St., London, E.C

MILLAR'S BRITISH WINES.
ORANGE (suitable for Quinine), GINGER, RAISIN, COWSLIP, CHERRY, &c.
A. MILLAR & CO., Thomas Street, DUBLIN.
Sole Agents for London and District—H. J. ROYDANT & CO., 75 Acre Lane, Brixton, S.W.

HOUSEHOLD REQUISITES.

For quotations of all descriptions see Druggists' Sundries List of undersigned.

See Advertisement, page 25.

EVANS, SONS & CO.
LIVERPOOL.

LONDON:
EVANS, LESCHER & WEBB,
60 Bartholomew Close.

CANADA:
EVANS AND SONS, LD.
Montreal, Toronto; and Victoria, British Columbia.

RANDALL'S
BLACK CURRANT LOZENGES

Plain Black Currant, old square 2/6	Black Currant Voice (warm astringent) 3/
Plain Black Currant, rough oval 2/6	Black Currant Cough Lozenges* 3/6
Black Currant and Ipecacuanha 2/6	*Ipecac. & Morph., strength as "B.P."
Black Currant and Tannin .. 3/	

In Bottles, 1-lb., 2-lb., 4-lb., and 7-lb. For Exportation, in Soldered Tins, of any size. From EDWARDS, London, or SANGER & SONS; through any Wholesale House; and from the Manufacturers,

RANDALL & SON, SOUTHAMPTON,
Who will forward Samples by post on application.

Also Brown Cough Lozenges, 2/; 7 lbs. stamped with name free, and Musk Lozenges (Special), 2/6.

N.B.—Medical Lozenges of every kind, including those of the Pharmacopœia of the Hospital for Diseases of the Throat, London, *made with Black or Red Currant.*

BY ROYAL LETTERS PATENT.

HASSALL & CO.'S
PHOSPHO-CITRIC ACID

Is the Best, Purest, and most Economical Agent for Acidulating all Saccharine Beverages.

Price only **10***d.* per lb., in 9 and 18 gallon casks; **1***s.* per lb. in small quantities.

One Ounce Measure is equal to One Ounce of Citric. It produces a higher class Beverage, and shows an economy of between £6 and £7 per cwt. We do not ask for an order, we merely solicit the favour of a trial.

3-oz. Sample for Postage (3 stamps), or 14 lbs. on approbation.

PAMPHLET GRATIS.

UNSOLICITED TESTIMONIALS.

We are pleased to be able to testify that your Phospho-Citric Acid is satisfactory under the most severe trials. We have placed Manufactured goods in which your Acid was used in a refrigerator for months, and also for nine months in a stove in which the temperature stands at over 150° day and night, and the bottles when examined to-day were as bright as the day they were put in. ———, LONDON.

LEMON STREET, ABERDEEN.

I have pleasure in bearing testimony to the fact that first-class waters are produced, with greater body and finer fruity flavour, at half the cost of Citric; and further that your Acid is free from all traces of **LEAD**, generally found in the crystals.

I am persuaded that your Acid will ultimately command the Mineral Water Trade. Yours faithfully, WM. THOMSON.

"And may I also be permitted to add my testimony to the excellence of your Phospho-Citric Acid; I consider it far and away preferable to Citric." C. H. ORTON, STOKE GOLDING.

FERMENTATION.

When Fermentation is present, Saccharine Beverages made with this Acid will keep sound and bright several days longer than those made with Crystal Acids.

HASSALL & CO.

YORK ROAD, KING'S CROSS, LONDON.

TELEGRAMS:—"REMPUJARON LONDON."

CHEMISTS & DRUGGISTS.

ATTENTION!!!

The Celebrated D. Fèvre's

SELTZOGENES

ARE

GUARANTEED TESTED

WITH POWDERS

By 175 lbs. of pressure per square inch.

THE TAPS ARE GUARANTEED

PURE BLOCK TIN WITHOUT LEAD.

The Taps and Mounts are not nickelled, and the purchaser cannot be deceived by the appearance of the metal.

THESSIER-FÈVRE,

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CELEBRATED D. FÈVRE'S SELTZOGENES.

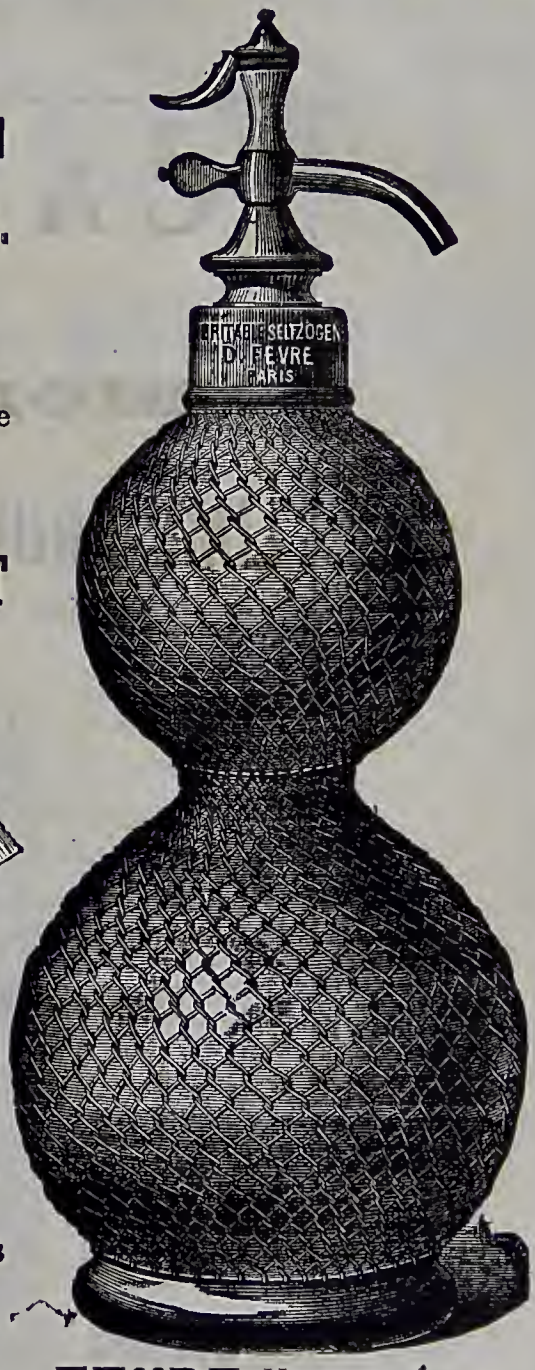


COMPLETE WITH FITTINGS.

GUARANTEED TESTED

by 175 lbs. of pressure per square inch.

BEST AND CHEAPEST



CAUTION.

Genuine Celebrated

SELTZOGENES

OF D. FEVRE.

None genuine unless bearing the words,

"VERITABLE SELTZOGENE D. FEVRE,"

AND THE TRADE MARK SIGNATURE,

D. Fèvre

THESSIER-FÈVRE,

SOLE MANUFACTURER,

Established 55 years.

398 Rue St. Honoré,

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Transferred

9 Rue Castex (Near the Bastille).

CAUTION!

THE SOLE CONSIGNEES OF THE

"MONTSERRAT"

(TRADE MARK)

LIME-FRUIT JUICE & CORDIALS

Caution the Trade against all Imitations.

EVANS, SONS & CO., Liverpool, are the Sole Consignees of this Juice, and the word "MONTSERRAT" being registered as a Trade Mark, proceedings will be instituted against any persons infringing their Trade Marks. All bottles bear their Name and also Trade Mark as follows on Capsule of each bottle :—

"MONTSERRAT"

TRADE 

MARKS

TRADE MARK.

SOLE CONSIGNEES:

EVANS, SONS & CO., LIVERPOOL.

LONDON:
EVANS, LESCHER & WEBB
BARTHOLOMEW CLOSE.

CANADA:
EVANS AND SONS (LIMITED)
MONTREAL & TORONTO.

ESTABLISHMENT OF BOULEVARD VOLTAIRE, 162 & 164, PARIS.

GOLD MEDAL



AT EXHIBITION, 1889.

DURAFORT

PATENTED.

SYPHONS

OF ALL MODELS.

Pure Tin and Glass, First Quality.

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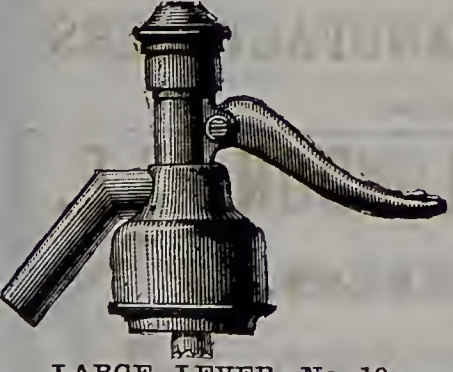
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To Make Seltzer and Vichy Waters, &c., &c.



SMALL LEVER.—No. 5.



LARGE LEVER.—No. 10.



SMALL LEVER.—No. 1.



SELTZATEUR.

New Patent Syphons with **TUBES** *entirely made of* **CRYSTAL** *for Lemonade and Potash or Soda Water.*

We beg to call the attention of our numerous customers to the quality of the material employed in the manufacture of our Syphons. In our quality not a particle of lead is employed. The crystal is of the very best quality; each Syphon is guaranteed to be tested before leaving our works.

SODA WATER MACHINES. **FILLING MACHINES.**

Our General Catalogue and Price List will be sent free on application. *Large Discount for Quantities.*

"LA JOYA" CIGARS.

See C. & D. Diary, p. 104.

This First-class Brand of English Cigars

IS MANUFACTURED SOLELY BY

M. & R. PEACOCK,

542 KINGSLAND ROAD, N.E.

Sample box of 25 Post Free for 5s. Postal Order.

WHOLESALE PRICE LIST TO LICENSED DEALERS ON APPLICATION.

REGISTERED TRADE MARK — ESSENCES AERATED — INVIGORINE — TONIC — H. E. Constance



"INVIGORINE"

(REGISTERED TITLE).

THE NEW AËRATED TONIC

Pleasant, Refreshing, and Invigorating.

Successful Wherever Introduced

Specially Useful in Hot Climates.

Retail 2/6, Wholesale 24/- Doz. net,

Through the Wholesale Houses or of

THE "INVIGORINE" MANUFACTURING CO.

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"MYRTLE GROVE" TOBACCO



In 1-oz., 2-oz., and 4-oz. Packets, and ¼, ½, 1 lb. Tins only.



TADDY & CO., 45 Minories, LONDON

ESTABLISHED 150 YEARS,

SNUFF, TOBACCO, AND SEGAR MANUFACTURERS.

Write for List of Specialities.

DOULTON & CO., LAMBETH, LONDON, S.E.

MANUFACTURERS OF EVERY DESCRIPTION OF

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NEW PATENT
Manganous Carbon FILTERS.
Boudoir and Table FILTERS.
Pocket and Syphon FILTERS.

House Supply or Cistern FILTERS.
Patent Granular Charcoal FILTERS.
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MAIN SERVICE FILTERS

FOR INTERMITTENT OR CONSTANT SUPPLY.

See Reports, Analyses, &c. Detailed Lists on application.

To be obtained of all Dealers.

DOULTON & CO., LAMBETH, LONDON, S.E.

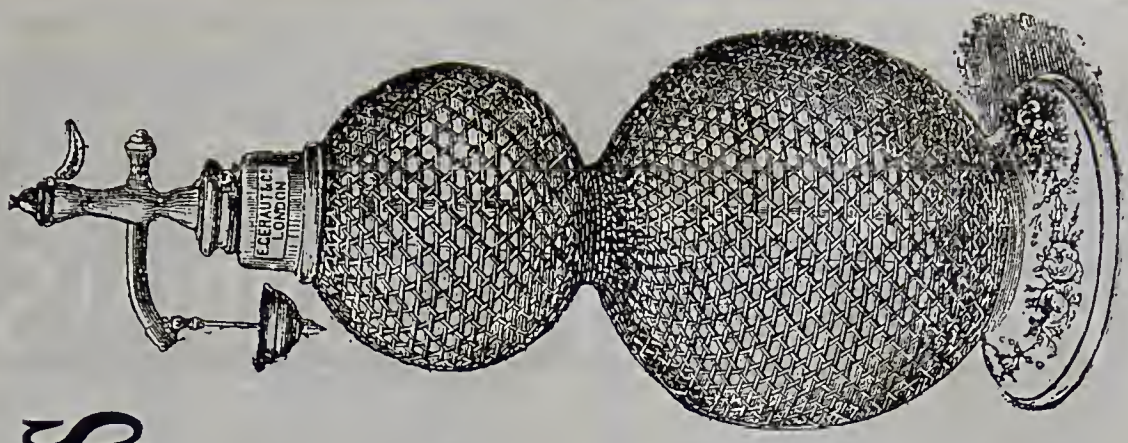
DEPOTS:—100 Soho Street, LIVERPOOL; Granville Wharf, BIRMINGHAM; and 6 Rue de Paradis, PARIS.

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139 & 141 FARRINGDON RD., LONDON, E.C.

PRIZES AWARDED AT ALL THE EXHIBITIONS.

Telephone No. 678. Telegraphic Address—"GERAUT LONDON."



SELTZOGENES

Patentees & Largest Wholesale Manufacturers.

3 PINT, WIRE & CANE.

5 " "

8 " "

Tested at a pressure of 240 lbs. per square inch, being double that they are used at, and we guarantee every machine on leaving our firm to be made with pure ENGLISH BLOCK TIN, and are made on the Premises.

PRICES AND ILLUSTRATED CATALOGUES, WITH FULL PARTICULARS, SENT FREE ON APPLICATION.



No charge for packing if ordered in our 1-doz. Boxes, with hinged lids, price 2/9 each.

BUY THE "LONDON MADE" SYPHON

AND SUPPORT BRITISH INDUSTRY.

It is the Cheapest, Strongest and Handsomest, and Best in the World.

PRICE 1/6 EACH.

Send for Samples and compare. Coloured Syphons extra.

The above are without Saucer Base, but they can be had with the Drip Saucer, 1/8 each.

Nickel plating from 2½*d.* each, Silver plating from 4½*d.* each. Marking on Metal Tops free, but Die charged for at cost price. Marking on Glass by acid process, from 1*d.* each; steel plate for printing from charged extra, according to design; no charge, however, will be made for this plate for orders of 1,000 and over.

BARNETT & FOSTER,

NIAGARA WORKS,

26T EAGLE WHARF ROAD, LONDON, N.

HIGHEST AWARD AT THE INTERNATIONAL EXHIBITION, LONDON, 1885.
TRADE MARK Registered May 21st, 1867.

"THE PIONEER TEMPERANCE BEVERAGES."—*Ch. Eng. Temp. Chron.*

BECKETT'S FRUIT SYRUPS & CORDIALS

TRADE MARK W.B. TRADE MARK W.B.

MILD DRINKS.
Cherry. Raspberry.
Strawberry. Lime Fruit
Black Currant. Lemon.
Orange. Jargonelle Pear.
Pineapple.
Raspberry Vinegar.
Orange and Quinine.

HOT DRINKS.
Wintering. Honey Liqueurs
Aromatic. Black Currant.
Gingerette. Ginger Lemon.
Peppermint. Clove.
Elderberry. Syrup of Hops
Lime Fruit Cordial.
Raspberry Cordial.

"First-class beverages."—*The Grocer.*
"Have an established reputation."—*Nonconformist.*
"That Beckett's Fruit Syrups are equal to what their proprietor claims for them is proved by the fact that they are largely used in Coffee Houses throughout the country."—*Coffee Public House News.*
"Delicious beverages."—*Scottish Good Templar.* [*Review*
"Beckett's Fruit Syrups are not to be excelled."—*Anti-Adulteration*
"All Mr. Beckett's preparations are most tastefully bottled and labelled, and their bright appearance makes them ornamental to the shelves of the Confectioner and Temperance Hotel-keeper."—*Good Templar Watchword.*

Analytical Reports from GRANVILLE H. SHARP, Esq., F.C.S.; G. BOSTOCK, Esq., F.C.S.

Price Lists, Testimonials, and other information sent post free on application to the Manufacturer—W. BECKETT, Heywood, Manchester

WM. BUSH, SON & CO.

(ESTABLISHED OVER 40 YEARS.)

YORK STREET, WALWORTH, LONDON, S.E.

Wholesale and Export Chemists. Manufacturers of Concentrated Fruit Essences and Flavourings of every description. Colour Extracts for Confectionery. Citrate of Magnesia, &c. Importers of Finest Super Essence of Lemon and all Essential Oils, &c.

PRICE LIST AND SAMPLES ON APPLICATION. TELEGRAPHIC ADDRESS—"BUSHWORTH LONDON

AVOID RISK OF CHILLS IN THE BATH BY USING

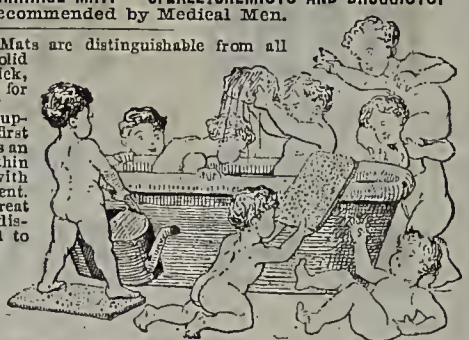
RANKIN'S CORK BATH MATS.

MAKES THE BEST CARRIAGE MAT. OF ALL CHEMISTS AND DRUGGISTS.
A Real Comfort. Recommended by Medical Men.

CAUTION.—These Mats are distinguishable from all others in being made of Solid Cork Wood, 1 inch thick, and are unequalled for warmth and comfort.

Valuable show-cards supplied to Retailers with first order; and with all Mats an equal number of fine thin cards of Cork printed with illustrated advertisement. These cards are a great novelty, and their free distribution will be found to assist sales materially.

PRICES,
3/-, 5/-, and 7/6 each, free; extra sizes, 10/6, 12/6, and 15/- each, super quality and finish.



M. RANKIN & SONS, 10 CARLTON PLACE, GLASGOW
Who are Chemists' Agents—S. MAW, SON & THOMPSON.

POMADE BOTTLES

For quotations of all descriptions see Druggists' Sundries List of undersigned.

See Advertisement, page 25.

EVANS, SONS & CO.

LIVERPOOL.

LONDON:
EVANS, LESCHER & WEBB,
60 Bartholomew Close.

CANADA:
EVANS AND SONS, LD.
Montreal, Toronto, and Victoria, British Columbia.

TO ESSENCE MAKERS.

ORANGE AND LEMON PEELS

(DRIED and FRESH).

This Season's Peel is now ready, and we are prepared to supply Fresh Orange and Lemon Peels specially cut (free from pith), in small shreds about 1" × 1/16", in a condition most favourable for the manufacture of Essences and the Official Tinctures.

Samples will be sent free on application.

"EXCELSIOR" TABLE JELLIES

IN CARDBOARD BOXES,

Of ½-Pint, Pint, and Quart Size, packed in Wood Boxes free.

½-Pints, 1/9 per doz.: Pints, 3/3 per doz.: Quarts, 6/ per doz.



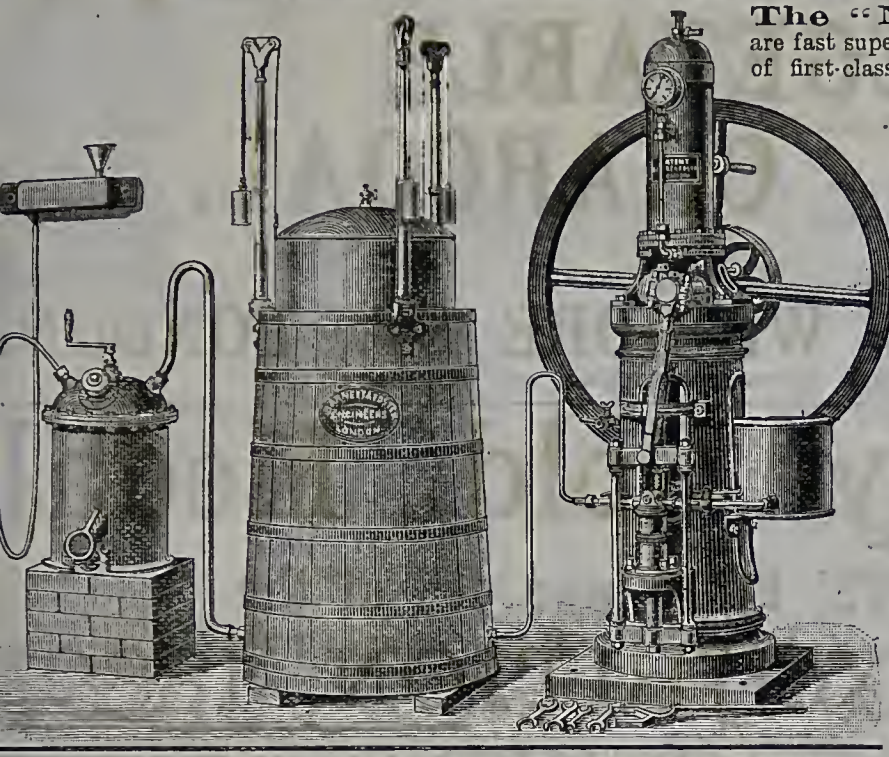
FLAVOURS:
Orange, Lemon, Calves' Feet, Vanilla, Raspberry, Noyeau, Cherry, Strawberry, Pineapple, and Black Currant.

CHAS. SOUTHWELL & CO.

DOCKHEAD, LONDON, S.E.

BARNETT & FOSTER,

Mineral Water and Ice Machinists, Bottle and Box Makers, Manufacturing Chemists, and General Providers for the Aerated Water, Wine, Beer, and Cyder Trades.



The "NIAGARA" MACHINES are fast superseding all other kinds for the manufacture of first-class Aërated Waters, and are in use in most of the leading manufactories in the world.

A	size, single, as drawing, capacity 600 doz. large bottles per day	£60
B	size, single, as drawing, capacity 1,200 doz. large bottles per day	75
C	size, Double Pumps and Cylinder, 2,400 doz. large bottles per day	125
D	size, Double Pumps and Cylinder, 4,000 doz. large bottles per day	180
E	size, Double Pumps and Cylinder, 7,000 doz. large bottles per day	250

Thousands of Testimonials have been received by us from users of these Machines.

Send for particulars of the **"NIAGARA" AUTOMATIC GENERATOR**, the perfection of ingenuity—it is Self-feeding with Whiting and Acid, and Self-emptying, and is the most economical in material and labour.

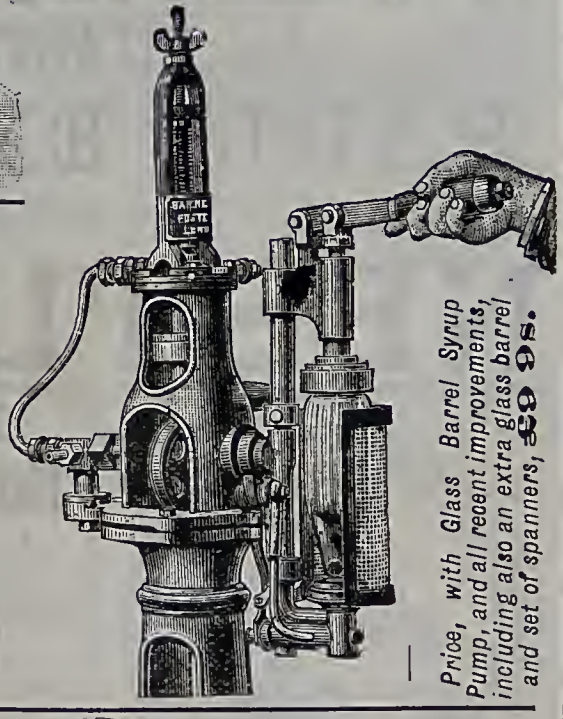
As the result of latest improvements in our machinery a saving of quite 50 per cent. is effected in labour and material.

THE "EXCELSIOR" TURNOVER FILLING MACHINE.

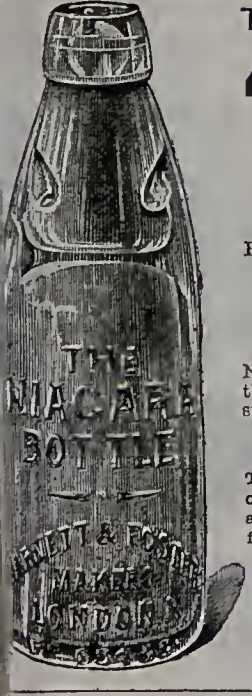
This is the most serviceable, reliable, and economical in the market.
A boy can syrup and fill 60 to 80 dozen per hour.

There is no Waste of Syrup, Water, or Gas!
It has the only Syrup Pump where there is no strain upon the glass barrel, consequently this never breaks. The Pump Leather is self-tightening, and will wear and last for years without touching!
It is the quickest in filling!
It is the quickest for altering and adjusting syrup! Both are done with the thumb and finger.
It is by far the strongest!
It is comparatively valveless!
It is the simplest to work and most lasting!
It is not liable to get out of order, having but few working parts!

Where power is used we recommend the **"ECLIPSE"** Filling Machine! By this a boy or girl places two bottles at a time in, and can syrup, fill, and deliver full-sized bottles at the rate of 120 dozen per hour! Estimated cost of filling, ¼*d.* per gross of first-class waters.



Price, with Glass Barrel Syrup Pump, and all recent improvements, including also an extra glass barrel and set of spanners, **£9 9s.**



THE TRIUMPH OF THE AGE
IS THE

"NIAGARA" BOTTLE,

Or Improved CODD'S.

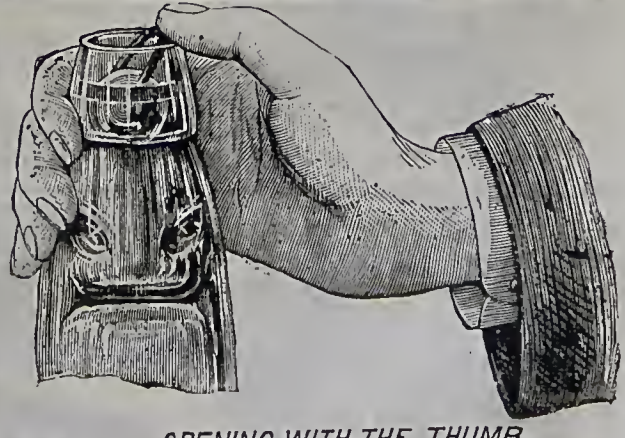
Everyone admits it is the most perfect in the market. Send for Sample and compare!

See the new Opener.

PRICES ON APPLICATION.

Name on Bottles free, for orders of 30 gross. Under that quantity moulds charged 10*s.* for orders for each size or shape. Extra Rings, 1*s.* 6*d.* per gross, printed with name of owner 3*d.* per gross extra.

The first to introduce this Bottle and unique means of opening in his district must at once command a monopoly of the Trade, as our experience confirms us in the statement that WHEN ONCE TRIED THE PUBLIC WILL HAVE NO OTHER.



OPENING WITH THE THUMB.

To open, push the opener from one side of the bottle neck to the other, when the ball immediately falls.

The "Attached Opener" ready for attaching to bottles already in use, **Price 3/- per Gross.**

ILLUSTRATED CATALOGUE FREE TO

BARNETT & FOSTER,

"NIAGARA WORKS," 26t Eagle Wharf Road, LONDON, N.

BRAGG'S

Sold in Powder, 2/-, 4/-, and 6/- bottles; also in Biscuits, 1/-, 2/, and 4/- tins (Children like these), and in Lozenges, 1/1½ tins (portable and convenient).



Undonbtedly the most natnral preventative and curative agent in all cases of Indigestion, Disorders of the Liver, Fevers, Cholera, Dysentery, &o.

The trade cannot do better than keep these old-established and safe preparations under the notice of their customers.

VEGETABLE CHARCOAL.

SOLE MANUFACTURER—

J. L. BRAGG, 14 WIGMORE ST., LONDON.

SHOW CARDS AND COUNTER BILLS ON APPLICATION.

The Only Gold Medal

For INFANTS' FOOD awarded at the

PARIS EXHIBITION, 1889,

HAS BEEN CONFERRED UPON

NESTLÉ'S FOOD



TRADE MARK.

KANGRA VALLEY
INDIAN TEA GROWERS' ASSOCIATION.

French & Langdale, 14 St. Dunstan's Hill, London, E.C.

Guaranteed to be Absolutely Pure, as supplied to Europeans in India.

Packed in 1-lb., ½-lb., and ¼-lb. Metallic Air-tight Packets.

No. 1, Orange Pekoe, at 4/ per lb. No. 2, Pekoe, at 3/ per lb. No. 3, Pekoe Souchong, at 2/6 per lb. No. 4, Souchong, at 2/ per lb.

Expert Prices in Bond, 6d. per lb. less than above, in Chests of 50 lbs. and upwards, shipped free of charge. 50 lbs. Carriage Paid. No Travellers employed. Wholesale Terms and Tasting Samples on application.

These Teas are recommended to Chemists not only on account of their Purity, but because they are Less Astringent than other Indian Teas.



DENAEYER'S

LIQUID PEPTONES STERILIZED

Free from microbes!
Keep good for ever in all Climates.
118 BISHOPSGATE STREET WITHIN, LONDON, E.C.

DENAEYER'S PEPTONATE OF IRON. A bland, non-irritating and most easily assimilable ferruginous preparation. For debilitated constitutions, children, and aged people.

DENAEYER'S PEPTONE OF MEAT. A powerful restorative for all ailments of the stomach, stimulates general nutrition. Is retained when the stomach rejects all other food. Pleasant to taste.

Of all Chemists and Wholesale Houses.

LIFE'S RESTORER!

FINEST CONSOMMÉ

HIGHEST POSSIBLE HONOURS.

Paris Exhibition, 1889;
Food and Cookery Exhibition, London, 1889;
&c., &c., &c., &c., &c.



LIQUID EXTRACT OF BEST FRESH BEEF.

A happy thought does not alone constitute a perfect invention; simplicity is needed to make it perfect.

"MAGGI" possesses this quality in a degree that renders it as indispensable in the kitchen as salt and pepper.

"MAGGI" is simply liquid EXTRACT OF BEEF, a teaspoonful of which, added to a cup of hot or cold water, makes at once a perfect BEEF TEA, which anyone, sick or well, will relish.

Two tablespoonfuls to a quart of water (adding Vegetables, &c.) will make a better Soup or Potage than hours spent over the fire.

The improvement in the quality of Gravies, Ragoûts, Stews, Hashes, Roasts, &c., by the addition of a few drops of "MAGGI," is amazing.

Unlike all other Extracts of Meat, "MAGGI" is most delicious, does not need the addition of salt and pepper, can be used by the most inexperienced, produces as good a Consommé or perfect Clear Soup as any first-class cook can prepare by the most elaborate nnd expensive means, and keeps good in any climate.

Soup Stock is now rendered unnecessary, as "MAGGI" is better, cheaper, and more nutritious for the sick, convalescent, and healthy.

In 2-oz., 1-lb., and 2-lb. Bottles, of all Chemists and Druggists throughout the world.

Wholesale Agents—E. Lazenby & Son; Samuel Hanson, Son & Barter; W. & D. Harvest; Crosse & Blackwell.

PASCALL'S GOLDEN MALTEX

Manufactured under Patent No. 1,506.



Contains
25 per cent.
of
Allen & Hanburys'
Extract of Malt.



Registered Title and Mark
No. 87192-93 & 90587-88.

A NOVEL CONFECTION—MOST SALEABLE.

Delicious Flavour. Brilliant and Attractive Appearance.

SELLS AT SIGHT.

Vide Dr. Tanner's Report, and *The Chemist and Druggist*, April 20.

1/- Bottles, 9/- per dozen; and in 4-lb. Jars, 1/6 per lb.

The cheapest and best package for retail is the 1-lb. bottle, tastefully finished, 20/- per dozen.

Specially prepared 2 and 4 oz. Bags, lined with waxed paper, supplied with each bottle for retailer.

XIX QUEEN ANNE STREET, W.

I consider "PASCALL'S GOLDEN MALTEX"—**in which is incorporated 25 per cent. of Allen & Hanburys' Malt Extract**—a most valuable addition to the preparations now used in the treatment of **Consumption** and other **wasting diseases**. They are an excellent and an agreeable substitute for Cod Liver Oil, but with this advantage, that they assist and do not impair digestion; and both adults and children take them without any difficulty, as they **are a most delicious** componnd.

I feel I can scarcely speak too highly of their qnalities for giving power to weak, delicate children, phthisical patients and infirm persons, with feeble digestions.

JOHN TANNER, M.D., M.R.C.P., F.L.S.
Senior Physician for the Diseases of Women and Children to the Farringdon General Dispensary and Lying-in-Charity, Late Physician to the Metropolitan Hospital, &c., &c.

February 25th, 1889.

The "CHEMIST AND DRUGGIST" says—

The tablets are skilfully mannfactured to look like little gilt bags stitched np with red silk, and they are not less attractive in consnmption. The pharmaceutical character they possess is imparted by the fact that they contain 25 per cent. of Allen & Hanburys' Malt Extract. . . . They are an excellent substitnte for cod-liver oil, and that they are an improvement on it will not bc dcnied by the most frantic lovers of the luscions oil.

COUNTER BILLS POST FREE ON APPLICATION.

OF ALL WHOLESALE HOUSES, OR OF THE MANUFACTURER,

JAS. PASCALL, BLACKFRIARS ROAD, LONDON, S.E.

See Specimen of Counter Bill in this issue between pages 32 and 33.

TYRER'S GOOD VALUE SAUCES

AND

"BOROUGH" KETCHUP.

£1



12½ Gallon Cask, cask free.



£1



12½ Gallon Cask, cask free.

"BOROUGH" KETCHUP, WORCESTER, HARVEY, YORKSHIRE, OR READING SAUCE.

1d. Sample Bottles, dozen parcels	per gross	5/	extra quality 6/
" " ½ gross boxes	"	5/6	" 6/6
1d. Giant Bottles, dozen parcels...		6/	" 8/
" " ½ gross boxes	"	6/6	" 8/6
¼-Bottles (flat or round), reputed ½-pint	"	16/	" 24/
½-Bottles (flat or round), reputed pint	"	26/	" 32/
½-pint Imperial Round Stoppered Bottles	"	30/	" 36/
1-pint " " " "	"	50/	" 60/
12½-gallon Casks (casks free)	each	20/	" 32/

ROYAL CAFÉ SAUCE.

In 8-oz. Square Stoppered Bottles, 48/ per gross.

A rich fruity Sauce of fine flavour, and worth especial attention, as being the most Saleable in the Market.

SAMPLES OF ANY KIND SENT FREE OF ALL COST BY

PETER TYRER,

The "Borough" Ketchup and Sauce Maker, 70 Long Lane, BOROUGH, LONDON, S.E.

SCOTCH AGENCY:—113 WEST NILE STREET, GLASGOW.

Also Sold by W. & C. PANTIN, Upper Thames Street, LONDON, E.C.; BURGOYNE & CO., 16 Coleman Street, LONDON, E.C.
JOS. TRAVERS & SONS, 119 Cannon Street, LONDON, E.C.
EVANS, SONS & CO., Hanover Street, LIVERPOOL, and LONDON, PARIS, MONTREAL, TORONTO, and SYDNEY.

Fry's Pure Cocoa



To secure this article ask for FRY'S PURE CONCENTRATED

To H.R.H. The Prince of Wales, The Empress of Germany, &c.

BRAND & CO.'S
PEPTONES
OF
BEEF,
MUTTON,
VEAL,
AND
CHICKEN.

BRAND & CO.'S.
SPECIALTIES FOR INVALIDS.
CONCENTRATED BEEF TEA, VEAL, MUTTON & CHICKEN BROTHS;
TURTLE SOUP & JELLY, CALFS' FOOT JELLY, MEAT LOZENGES
ESSENCES OF BEEF, MUTTON, VEAL AND CHICKEN
SOLE ADDRESS, 11 LITTLE STANHOPE STREET, MAYFAIR, W.

AGENCIES!!!

The secret of taking an Agency, and the chances of its proving profitable to those entertaining the same, depend upon its being an article of daily consumption, and upon its being of such good quality that a steady and ready demand is the result. An Agency of this description now offers, and to all those who are prepared to introduce the "Spring Blossom" Ceylon Tea, a most desirable addition to their business will be the result.

The margin of profit allowed is a liberal one, and it therefore becomes a most desirable Agency and a remunerative source of income.

☞ Read article on Tea in this year's "Chemist and Druggist's Diary," page 255.

☞ *"THE CHEMIST & DRUGGIST" of July 16, 1887, says:—"The 'Spring Blossom' Ceylon Tea supplied by Messrs. Cave, Johnson & Co., 8 Lime Street, in tin canisters, effectively labelled, but not bearing the name of the firm, is an excellent article for Chemists' sale. It is a tea of remarkably fine flavour, likely to secure a lasting reputation, and in these air-tight tins will neither deteriorate nor absorb other flavours—considerations of no small importance to Chemists and Druggists."*

Packed in 1-lb., ½-lb., and ¼-lb. canisters and lead packets, to sell Retail at 2/, 2/6, and 3/ per lb. Set of three ¼-lb. samples post free for 2/ in stamps.

CAVE, JOHNSON & CO., WHOLESALE TEA & COFFEE DEALERS, 8 LIME STREET, **LONDON, E.C.**

BANKERS—WILLIAMS, DEACON & CO.

THE BEST BEVERAGE FOR CHILDREN



—:o:—

CADBURY'S COCOA is closely allied to milk in the large proportion of flesh-forming & strength-sustaining elements that it contains. It is prepared on the principle of exclnding the super-abundance of fatty indigestible matter with which Cocoa abounds, supplying a refined thin infusion of absolutely pure Coooa, exhilarating and refreshing, for Breakfast, Luncheon, Tea or Supper—giving staying power and imparting new life and vigour to growing Children and those of delicate constitutions.

CADBURY'S COCOA

ABSOLUTELY PURE, THEREFORE BEST.

TO THE

CHEMISTS & DRUGGISTS

OF

GREAT BRITAIN.

TELEGRAPHIC ADDRESS:
COLEMAN,
GEORGE'S, NORWICH.

St. George's, Middle St.
NORWICH,
December, 1887.

The Excise Authorities having created a difficulty as to the sale of Medicated Wine containing a certain percentage of alcohol, we obtained in January last, from the Inland Revenue Authorities, permission to sell our Liebig's Extract of Meat and Malt Wine, **WITH QUININE,** without a Wine Licence, and many Chemists not holding a Wine Licence have sold considerable quantities. In order further to meet the requirements of the trade, we have introduced a Liebig's Extract of Meat and Malt Wine, **NON**-Alcoholic, made from the juice of the Grape, Liebig's Extract of Meat, and Extract of Malt. This also can be **SOLD WITHOUT A WINE LICENCE.** Your orders will oblige either direct or through the Wholesale Houses.

Yours obediently,

COLEMAN & CO., LIMITED.

N.B.—The Wine is sold in Bottles, 2/9 and 4/6 each. Trade prices on application.

P.S.—Where the Magistrate's Certificate is not held we are willing to pay the **entire cost of a Retail Certificate** (the holder of which can sell any kind of Wines) if an **assorted order of 6 dozen** is sent us of any of our preparations. List on application. Our **Liebig's Extract of Meat and Malt Wine WITHOUT QUININE** commands a very large sale, and is recommended by over one thousand medical men who have sent us testimonials in its favour.

SOLE MANUFACTURERS—

COLEMAN & CO., LIMITED,

ST. GEORGE'S NORWICH,

AND 3 NEW LONDON STREET, LONDON, E.C.

EIGHT PRIZE MEDALS AWARDED

GOODALL'S

HOUSEHOLD SPECIALITIES.

YORKSHIRE RELISH.

Most Delicious Sauce in the World. Bottles, 6*d.*, 1*s.*, and 2*s.* each.

GOODALL'S BAKING POWDER.

The Best in the World. 1*d.* Packets; 6*d.*, 1*s.*, 2*s.* and 5*s.* Tins.

GOODALL'S EGG POWDER.

One 6d. Tin is equal to 25 eggs. In 1*d.* Packets; 6*d.*, 1*s.*, 2*s.* and 5*s.* Tins.

GOODALL'S CUSTARD POWDER.

Delicious Custards without Eggs. In Boxes, 2*d.*, 6*d.*, and 1*s.* each.

GOODALL'S BLANCMANGE POWDER

Delicious Blancmange in a Few Minutes. Boxes, 6*d.* and 1*s.* each.

GOODALL'S QUININE WINE, B.P.

Best Tonic yet Introduced. Bottles, 6*d.*, 1*s.* and 2*s.* each.

GOODALL'S GINGER-BEER POWDER.

Makes the Best Ginger-Beer. Packets, 3*d.* and 6*d.*

GOODALL'S BRUNSWICK BLACK.

For Painting Stoves, Grates, Iron, Tin, &c. 6*d.* and 1*s.* Bottles.

GOODALL'S LAVENDER WATER.

A Rich and Lasting Perfume. Bottles, 1*s.*, 2*s.*, and 5*s.* each.

GOODALL'S PLATE POWDER.

For Polishing and Cleaning all Metals. Boxes, 6*d.*, 1*s.* and 2*s.*

GOODALL'S JELLY SQUARES.

Make a Delicious and Nutritious Jelly. In ½- and 1-pint boxes, 3*d.* and 6*d.* each.

PROPRIETORS—GOODALL, BACKHOUSE & CO., LEEDS.

PATENT MEDICINES AND DRUGGISTS' SUNDRIES.

Monthly Price List of Patent Medicines, Druggists' Sundries, &c., will be sent post free on application to

GOODALL, BACKHOUSE & CO., LEEDS.



Gold Medal, Health Exhibition, London, 1884.

BENGER'S FOOD,

REGISTERED.

(PANCREATISED, SELF-DIGESTIVE).

For Infants, Children, and Invalids.

This delicious and highly nutritive Food is distinguished from others by the ease with which it can be digested and assimilated.

It is recommended by the *Lancet*, *British Medical Journal*, and the whole of the Medical Press, and is well-known to the leading Medical men.

Extracts from Private Letters.

"The infant was very delicate, and our medical adviser ordered your Food. The result in a short time was wonderful, the little fellow grew strong and fat, and is now in a thriving condition—in fact the 'flower of the flock.'"

"I am pleased to say that when every form of diet failed we were enabled to give Benger's Food and to see our children gain rapidly and permanently."

"My last little boy was fed entirely upon it from birth, and a healthier child it would be difficult to find. My wife sounds the praise of 'Benger's Food' everywhere."

Tins, 1/6, 2/6, & 5/-, *of Chemists, &c., everywhere.*

MANUFACTURERS—

Mottershead & Co. (S. Paine & F. B. Benger),

7, EXCHANGE STREET,

MANCHESTER.

BENGER'S FOOD may be obtained through all Wholesale Houses and Shippers, or direct from the Manufacturers.



ROBINSON'S
LIEBIG'S BEEF WINE.

Composed of Liebig's Extract of Beef, Extract of Malt, and sound Port Wine.

REPORT ON BEEF WINES.

From the results of my Analyses of various Beef Wines I have had occasion to examine, none have equalled as regards strength, purity of ingredients, and (of no less importance) the skilful and judicious manner in which the respective ingredients have been proportioned and combined, the Liebig's Beef Wine manufactured by Mr. B. Robinson, of Pendleton, Manchester.

It is in every sense a reliable preparation, embodying in a pleasing and palatable form all the acknowledged medicinal and nutritive properties pertaining to **Liebig's Extract of Meat, Extract of Malt, and sound Port Wine.**

WILLIAM ELBORNE, F.C.S., F.L.S.,
Lecturer on Materia Medica in the Owens College, Manchester (Victoria University).
December 15, 1888.

[Introduced 1855.] **ROBINSON'S CONCENTRATED WATERS.** [Introduced 1855.

One Ounce of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopœia, and free from all Chemical impurity. They will keep good any length of time in any climate.



Aqua Anethi, Concent., 4/ lb.	Aqua Cinnam. Ver. Concent., 6/ lb.	Aqua Fœniculi, Concent., 4/ lb.	Aqua Pimentæ, Concent., 4/ lb
,, Anisi ,, 4/ ,,	,, Cassiæ ,, 4/ ,,	,, Menth. Pip. ,, 4/ ,,	,, Rosæ ,, 8/6 ,,
,, Camphoræ ,, 4/ ,,	,, Flor. Aurant. ,, 8/6 ,,	,, ,, Ang. ,, 6/ ,,	,, Rosæ Virgin ,, 10/6 ,,
,, Carui ,, 4/ ,,	,, Fior. Sambuci ,, 8/6 ,,	,, ,, Virid. ,, 4/ ,,	

The above are put up in Bottles of ½ lb. or 1 lb. and upwards, each of which has the Inventor's Protection Label over Cork.

From the Lancet, *July* 15, 1882:—"Concentrated Waters (Robinson's, Pendleton, Manchester).—Among the samples sent to us we find Aq. Anethi, Anisi, Cinnam. Ver., Rosæ, and some dozen of others. Diluted with forty parts of water they form the ordinary waters of the Pharmacopœia. They are *excellent in quality*, and will be very useful, especially in country practice. [1]

Wholesale Agents: Heaton & Co., London, and most Provincial Wholesale Druggists. PREPARED BY THE INVENTOR.
B. ROB'N · MANUFACTURING CHEMIST, DISTILLER, AND BREWER OF BRITISH WINES, MANCHESTER

ROWNTREE'S
"ELECT" COCOA.

The "MEDICAL PRESS AND CIRCULAR":—
"Certainly this preparation is of delicate flavour . . . It is perfectly soluble . . . the small quantity required for the *immediate* prodnotion of a cnp of excellent cocoa will ensure for this 'Elect Extract' a favourable reception at the hands of persons of weak digestion, and all who prefer this wholesome beverage to tea and coffee

The "BRITISH MEDICAL JOURNAL" says:—
"Rowntree's Cocoa Extract is one of the best. Its flavour and aroma are good. Cocoa thus prepared is one of the most digestible articles of food."

YORK, ENGLAND.

COLTHURST & HARDING,



BALL DENOTES COLOUR OF PAINT.

BRISTOL—Manufactories: Phœnix Wharf and Temple Gate. Offices: Temple Gate. Telegrams: "Phœnix Bristol."
LONDON—Manufactory: Alpha Works, Millwall E. City Office: 16 Fish Street Hill, E.C. Telegrams: "Alpha Brand London."

HARD LUSTROUS ENAMEL,
IN ALL THE ART SHADES.
For all kinds of decoration on Wood or Iron. Dry with a surface like Porcelain. Sold in small or large Tins, or in bulk. Prices and shades on application.

WHITE LEAD, ZINC WHITE, PAINTS & COLOURS OF ALL KINDS.
MIXED PAINTS READY FOR USE,
In Tins, 1, 2, 4, 7, and 14 lbs. each.
HIGH-CLASS VARNISHES
Of all kinds, for Coachbuilders, Decorators, &c.
OIL BOILERS, REFINERS, & MERCHANTS
Export Orders receive special and prompt attention

HUGO BROWN & CO.

41 Ormond Street, LIVERPOOL,

SOLE AGENTS IN EUROPE FOR LIEBIG'S

EXTRACT OF BEEF

MADE BY

MESSRS. A. SANTA MARIA & CO.
PAYSANDU.

Sold as imported in cases of two tins each, weighing together about 112 lbs.

SPONGES

For quotations of all descriptions see Druggists' Sundries List of undersigned.

See Advertisement, page 25.

EVANS, SONS & CO.

LIVERPOOL.

LONDON:
EVANS, LESCHER & WEBB,
60 Bartholomew Close.

CANADA:
EVANS AND SONS, LD.
Montreal, Toronto; and Victoria, British Columbia.

CIGARS, Etc.

At the Lowest Wholesale Prices.

La Juana .. .. .. 10/6 per 100, Sold at 2d. each.
La Trafalgar .. .. 15/0 ,, ,, 3d. ,,
El Sol Habaners, Havannah 1885 Crop } 22/ per 100, Sold at 4d. each.
&c, &c. TOBACCO, CIGARETTES, &c.

Samples on receipt of 1s. 6d. *in Stamps.*

BEWLAY & CO., LTD.

Tobacco Manufacturers and Cigar Importers,
49 STRAND, and at 143 CHEAPSIDE, LONDON.
ESTABLISHED OVER 100 YEARS.

TYRER'S MENTHOL



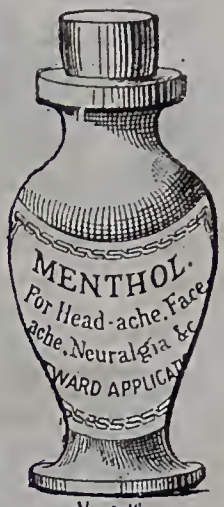
PEDESTAL.

1d. sizes



BOTTLE.

6s. gross



VASE.



FIG. A.

INFLUENZA
CURED BY
MENTHOL.

Dr. LENNOX BROWNE says:—"It kills the microbe of infection."—*Vide* MEDICAL PRESS AND CIRCULAR, January 8, 1890.

2d. Size, as Fig. A, **12s.** gross, stained and varnished, all put on ¼-gross cards with ELASTIC. Sample free.

PETER TYRER, 70 LONG LANE, BOROUGH, LONDON, S.E.

BOVRIL

IN THE "LANCET" OF NOVEMBER 11, 1865. BARON LIEBIG SAYS:—

"Were it possible to furnish the market at a reasonable price with a preparation of meat, combining in itself the albuminous together with the extractive principles, such a preparation would have to be preferred to the Extractum Carnis, for it would contain all the nutritive constituents of meat." Again—"I have before stated that in preparing the Extract of Meat, the Albuminous principles remain in the residue, they are lost to nutrition, and this is certainly a great disadvantage."

"**BOVRIL**" contains the albumin and fibrine in the most perfect possible form, and to those who know the requirements of the human system and the constituents of food, it will be apparent that this albumen and fibrine is identical with what the body requires for recuperation, and that as a perfect form of concentrated nourishment it must supersede any animal aliment at present known.

"**BOVRIL**" has solved the problem of the great German Chemist.

"**BOVRIL**" is Baron Liebig's ideal realised.

OFFICES:—30 Farringdon Street, LONDON.

WILKINSON'S COMPRESSED ENGLISH HOPS.

Best Hops compressed into small parcels of one pound and half-pound, and sent out in cases containing 30 lbs. each. These hops are specially selected and compressed for keeping purposes, and will retain their aromatic strength for a considerable time.

They are introduced to the public to enable them to make their own **HOP BITTERS, YEAST, HOME BREWING,** and numerous other purposes. Full particulars given in each packet.

Samples and Prices sent on application to

A. WILKINSON & SONS, 37 CANNING PLACE, LIVERPOOL.

P.S.—Chemists will naturally see the great advantage in making their own Bitters from the Pure Hop itself. Dealers in every description of Isinglass.

"RAMORNIE." LIEBIG'S Extract of Meat.

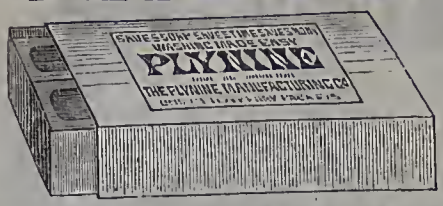
As supplied to the Admiralty, War, and India Offices.

1-lb. Jars	per lb. 6/9	per doz. 81/0	2-oz. Jars	per lb. 7/8	per doz. 11/6
½-lb. Jars	„ 7/0	„ 42/0	1-oz. Jars	„ 8/4	„ 6/3
¼-lb. Jars	„ 7/3	„ 21/9	½-oz. Jars	„ 8/8	„ 3/3

QUOTATIONS FOR EXTRACT IN "BULK" ON APPLICATION.

Write for Detailed Price to the Australian Meat Co, 9 and 11 Fenchurch Avenue, E.C. 6 lbs. Carriage Free.

PLYNINE.



Unequalled for softening hard water for all Laundry purposes.
In Penny Tablets, 8/ per gross.

SUPERIOR CAMPHOR.



Retail 1*d.* per Square.
Packed in ½ gross handsome counter boxes.
Per gross, 7/6.

GLUE

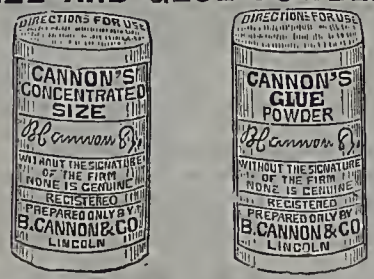
Town Glue	25/-, 30/-, 36/-, 42/- per cwt.
Scotch	48/-, 52/-, 56/-, 62/- ,,
Freuch Medal ..	33/-, 35/-, 38/-, 42/- ,,
Country, Thin Pale ..	36/-, 42/-, 48/-, 56/- ,,

GELATINE

Gelatine, Thick	75/- to 180/- per cwt.
,, Thin ..	46/-, 52/, 56/- to 300/- ,,
Anti Russian ..	64/-, 70-, and 76/- ,,

One Hundred Tons of Glues and Gelatines always in stock.

SIZE AND GLUE POWDER.



In ¼, ½, 1, 2, 4, and 7 lb. packets.
28, 56, and 112 cases, first quality, 65/- per cwt.
,, ,, second ,, 54/- ,,

DIAMOND DYES.



3*d.* packets, 21/- gross. 6*d.* packets, 40/- gross.

ASPINALL'S ENAMEL

SALES INCREASING.



130 COLOURS IN STOCK.

LARGE SIZE TINS.	SMALL SIZE.
Per 9/6 doz.	Per 3/9 doz.
BATH ENAMEL	ENAMEL.
12/- and 24/- doz	Per 18/- Gallon.
BATH ENAMEL, 22/- Gallon.	

Above Prices subject to 5 % discount for Cash.

December 31, 1889.

DEAR SIRS,—I have to ackuowledge, with thauks. the receipt of your further order for my Enamel to the value of Five Thousand Ponnds, which shall he delivered in duo course. I am pleased to note that this last order brings up the value of Enamel ordered by you within the last 5½ months to £10,000 (Ten Thousand Pouods sterling). With regard to tbeadvanced price you are paying me, I assure you it is impossible, in view of the very great increase in price of materials, to continue at tbe old rates.

Yours faithfully,
H. E. ASPINALL.

HERBERT'S GLUE POT,

Of which we are Manufacturers.

Of which we are Manufacturers and Sole Proprietors.



Filled with Genuine, Good, Firm, Adhesive Glue, and Brush complete.

No House, Office, or Shop should be without it.

SAVES 50 TIMES ITS COST.

In Boxes of 1 Dozen, 3/6.

The Genuine Article, Herbert's, bears the name HENRY HERBERT'S, which has now stood the test for nearly 20 years.

HOUSEHOLD NECESSARY.



This handsome bronzed Paper Cabinet can be screwed to the wall, or it will stand on the seat or window-sill. Cabinets only. 8/6 per doz.
Paper to refill, in cases of 100 rolls, best quality, 35/-, or 4/3 per doz
Seconds, 28/-, or 3/6 per doz.

Extra Super Perforated, 45/- case of 100 Rolls.



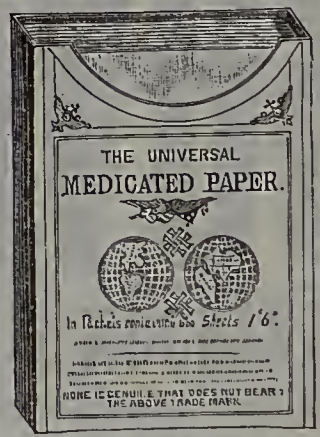
THIS FIXTURE,
Per 4/6 doz.

Perforated Paper,
Superior.
100 Rolls. 37/6;
4/6 per doz.

Seconds,
100 Rolls, 28/-;
3/6 per doz.

All our Paper is guaranteed 12-oz. Rolls.

MEDICATED TOILET PAPER



☞ We do a high-class West-End trade in this article in 12 dozen lots, with Customers' names

"HENRY HERBERT'S."
FOR HIGH-CLASS TRADE.
This Paper is absolutely pure, being manufactured from Rye Grass.

Price per dozen boxes, 9/-

GERMAN POLISHING POMADE.

Large Size,		Small Size,
20/-	A.V. & Co	7/9
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SPECIAL PRICE FOR QUANTITY.
FRIEDRICH MAKE.

1*d.*	2*d.*	3*d.*	6*d.* size.
6/6 ..	11/- ..	18/- ..	30/- gross.

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CURLING, G., & Co. .....*Wholesale and Export Druggists (Foreign)*
CROMPTON, E., & Co. .....*Oils, Paints, and Disinfectants*
DIE OIL COMPANY (Lim.) .....*Oleum Deelina and Salva Petrolia*
ELLIMAN, SONS & Co. .....*Embrocation*
HUNT, W. F., & Co.....*Bottle Caps*
HAMILTON & Co. .....*Pineotas and other Disinfectants*
HALF-PRICE CLOSED LETTER Co. (Lim.) *Successful and Attractive Agency (United Kingdom)*
NEWBALL & MASON .....*Original Extract of Herbs*
PASCALL, J. .....*Specimen of Counter Bill Golden Maltex*
PEARS, A. & F. .....*Pears' Soap*
ROSENKRANZ, J. L. .....*Clinical Thermometers (Foreign)*
SHIRLEY, A. W. .. ..*Menthol Cones, Smelling Bottles*
STERN, G. & G. .....*Pumiline*
TRENT BROS. .....*Shop Fitters*
THOMPSON, WALTERS, HOLE & Co. ..... *Catalogue of Druggists' Sundries*

CLASSIFIED LIST OF ALL ADVERTISERS

Whose Announcements appear in "THE CHEMIST AND DRUGGIST." Those whose Names do not appear on previous page are published in one of the other issues of this month.

AERTD & MINRLS
Apollinaris (Hungarian Aperient Water, Diamond Mark, Friedrichshall Apollinaris)
Barnett and Foster
Chemists' Aërated Waters Association.
Ellis (Ruthin)
Hassall and Co. (Citric Acid Phospho)
Hay, W.
Idris and Co.
Jewsbury and Brown
Kiumond and Co.
Levico Springs Co. (Limited)
Mills and Co. (Bourne)
Taylor, T. and F. J.
[See GINGER ALE.]

DITTO PLANT
[See SYPHONS and ESSENCES.]
Barnett and Foster
Brathy and Hinchliffe (Ld.)
Egrot
Favarger and Co.
Favre, T.
Gueret Frères
Prudon and Dubost
Tylor, Hayward, and Co.

ACETIC ACID
Dunn and Co.
Fuerst Bros.
Morris and Callard (Salts)

ALKALOIDS
Howards and Sons (Cinchona)
Smith T. and H.

ALMANACKS
Blake and Mackenzie
Silverlock, H.

AGNCIES ABROAD
Acard, Ed.
Australian Drug Co.
Boissy
Cocking and Co. (Japan)
Felton, Grimwade and Co. (Melbourne)
Fougera and Co. (New York)
Kempthorne, Prosser & Co. N.Z
Lsunon, B. G., and Co.
Levy, Jules
Natal Drug Co. (Limited)
Peake, Allen and Co.
Petersen, P. J., and Co.
Prosser, Taylor and Co.
Rich, E. C., Co.
Robarts (Paris, &c.)
Rocke, Tompsitt and Co. (Melbourne)
Sharland and Co.
Soul, W. H., and Co.

AMMONIA
May and Baker,
White, A., and Sons
Woolley, Sons and Co.

APPARATUS
Clarke, S. (Food Warmer and Bed Tray)
Egrot
French Nickel Manufacturing Co.
Orme (Scientific)
Perken, Son and Raymant
Tebbutt, F.
Wedgwood & Sons (Mortars)

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Bailey, W. H., and Son
Robinson and Sons
Seabury and Johnson

BAKING POWDER
Dunn, W. G., and Co.
Goodall, Backhouse & Co.

BEESWAX
Bowdlear, W. H., and Co.
Luneberger Wax Bleaching Works

BICARB. SODA
Brunner, Mond and Co., Lim.
Howards and Sons
May and Baker

BISMUTH, PREP.
Hearon, Squire and Francis
Hewlett and Sons
Howards and Sons
May and Baker
Symes and Co.
White, Alfred, and Sons

BLOOD MIXTURE
Lincoln and Midland Counties Drug Co.

BOOKS
Churchill, J. and A.
Davis, J.
Gurney and Jackson
Hargreaves, Dr.
Longmans, Green and Co.

BOTANIC BEER
Newball and Mason

BRUSHES
Dukas and Co.
Evans, Sons and Co. (Tooth and Hair)
Fordham, W. B., and Sons
Kent, G. B., and Sons
Moseley, Davis and Sons

BOTTLE CAPPING
Beach, J., and Sons
Hunt, W. F., and Co.

BOTTLES
Aire and Calder Bottle Co. (Ld.)
Barnett and Foster
Barrett, R. H.
Brathy and Hinchliffe (Ld.)
Breffit's (Lim.)
Evans, Sons and Co.
Gilbertson, H., and Sons
Hearn, E. A., and Co.
Hunt, W. F. (Caps)
Isaacs and Co.
Kilner Bros.
Melin, C. (Stoppers)
Potha, H., and Co.
Sanders, H. G., and Son
Shirley, A. W.
Toogood, W.
Youldon, E.
"W" Brand

BOXES
Austin and Co. (Cardboard)
Ayrton and Saunders
Chalmers, W. B.
Evans, Sons and Co.
Owen, J., Jr
Parmenter, I. W. & Co. Lim
Robinson and Sons

BUTTER COLR, &c.
Johnsen and Jürgensen
Oldfield, Pattinson and Co.

CAMPHOR
Fuerst Bros.
Howards and Sons
Keene and Ashwell (Homœopathic
May and Baker

CAPSULES
Denoual, J. (Medicinal)
Duncan, Flockhart and Co
Evans, Sons and Co.
Hooper, B., and Co.
Maw, S., Son and Thompson
Robertson, J., and Co.

CAPSULES (METALLIC)
Betts and Co.
Brooks, Peel and Co.
Melin, C. (Machine)
Sanders, H. G., and Son

CSCRA SAGRADA
Duncan, Flockhart and Co
Evans, Sons and Co.
Ferris and Co.
Moss, J., and Co.
Squire and Sons

CASTOR OIL
Fuerst Bros.

CATALOGUE
Evans, Sons and Co.
Maw, Son and Thompson
May, Roberts and Co.
Sanger and Son
Schutze, F., and Co.

CEMENT
Kay Bros., Lim

CHALK PRECIP.
Dunn and Co.
Levermore, Ang., and Co.
Whits, A., and Sons

CHEMICALS
Andreas, Oscar and Co
Boehringer, C. F., and Sohne
Bramwell and Son
Brunner, Mond and Co., Lim.
Bush, W., Son and Co.
Dunn and Co.
Fletcher Fletcher and Stevenson
Fuerst Brothers
Goodall, Backhouse and Co.
Greeff, R. W., and Co.
Hill, A. S., and Son
Hodgkinsons, Treacher and Clarke
Howards and Son (Pharm.)
Kuhn, B.
Levermore, Ang., and Co.
Lofthouse and Saltmer
Lorenz, H.
May and Baker
Morris and Callard
Moss and Co.
Pronk, Davis and Co.
Stern, G. and G. (Pumiline).
Smith, T. and H., and Co.
Typke and King
White, A., and Sons
Zimmermann, A. and M.

CHEST PROTCTRS
Bailey, W. H., and Son
Evans, Sons and Co.
Hockin, Wilson and Co.
Liverpool Lint Co.
Lynch and Co.
Maw, Son & Thompson, S.
Pattison, G.
Sanger and Sons
Schutze, F., and Co.
Thompson, Walters, Hole and Co. (Limited)
Wood, Vincent

CHLRIDE OF GOLD
Rowland, L.

CHL. OF POTASH
Burroughs, Wellcome and Co.
Hooper, B., and Co.

CHLRIDE OF LIME
Government Sanitary Co.
National Chemical Co.

CHLORODYNE
Davenport (Browne's)
Towle, A. P., and Son

CHLOROFORM, &c.
Duncan, Flockhart and Co.
Macfarlan, J. F., and Son
Smith, T. and H., and Co.
Wright, Layman and Umney
Zimmermann, A., and Son

CITRIC ACID
Hassalls (Phospho)

COCAINE-HYDRO
Boehringer, C. F., and Sohne
Howards and Sons

COCA WINE
Armbrecht, Nelson and Co.
Evans, Sons and Co.
French Hygienic Soc.

COCOA & CHOCLTE
Cadbury Bros
Fry and Sons
Rowntree and Co.
Van Houten's Cocoa

COD-LIVER OIL
Allen and Hanburys
Burroughs, Wellcome and Co
Evans, Sons and Co.
Hill, A. S., and Son
Moller, P.
Lofthouse and Saltmer
Oppenheimer Bros. and Co.
Smith, T. J.
Woolley, Sons and Co.
Wright, Layman and Umney

COFFEE
Symington and Co. (Coffee Essence)

COLPSIBLE TUBES
Betts and Co.
Brooks, Peel and Co.
Sanders, H. G., & Son

COMP. MEDICINES
Allen and Hanburys
Blyton, Astley and Co.
Burroughs, Wellcome and Co
Fuerst Bros.
Hooper, B., and Co.
Leo and Co.
Wyleys and Co.

CONFECTIONERY
Blyton, Astley and Co.
Gibson, R., and Sons
Kerfoot, T.
Pascall, J.
Warrick Brothers

CONCENT. LIQS.
Evans, Sons and Co.
Fletcher, Fletcher & Stevenson

CORN CURES
Maw, Son and Thompson, S.
Seabury & Johnson (Plasters)
Thompson, M. F.
Young, H.

COTTON WOOL
Haynes, G., & Co. (Absorbent)
Robinson and Sons (Absrbnt.)
Sanger, J., and Sons
Seabury and Johnson

CRSHD LINSEED
Mumford, G. S.

DISINTEGRATORS
Carter, J. H.

DOG MEDICINES
Spratts (Patent)

DENTIFRICES
Fentiman & Co.
Jewsbury and Brown
Kennedy, The, Co.
Maw, Son and Thompson, S.
Newbery and Sons
Reeb, H.
Sutton, O., and Co.
Thompson and Capper
Warrick Bros.
Woods, W. (Areca Nut)
Wright, C., and Co.

DISINFECTANTS
Government Sanitary Co.
Hamilton and Co.
Jeyes' Sanitary Compounds
National Chemical Co.
Seabury and Johnson
Sanitas Co.

DRUGGISTS' SUN.
Ayrton and Saunders
Bailey, M., and Co.
Barclay and Sons (Limited)
Davy, Humphrey, & Co.
Evans, Lescher and Webb
Evans, Sons, and Co. (Savars)
Gilbertson, H., and Sons
Hill, A. S., and Son
Hockin, Wilson and Co
Idris and Co.
Jessop, R. H. and Co.
Kay Bros., Lim.
Lynch and Co.
Marriot, E., and Co.
Maw, Son and Thompson, S.
May, Roberts and Co
Rankin and Sons (Cork Mats)
Sanger and Sons
Schutze and Co.
Thompson, Walters, Hole & Co
Toogood, W.
Wood, Vincent

DRUMS, CANS, &c.
Noakes and Co.

EAU DE COLOGNE
Farina, J. M.
Mann, C. A., and Co.
Shirley, A. W.

ELASTIC HOSIERY
Wood, V.

ELECTRIC APPAR.
Berry, F. H.
Darton, F., and Co.
Gent and Co.
Orme and Co.

EMBROCATION
Elliman, Sons and Co.

ENAMEL
Fordham, W. B., and Sons

ENEMAS
Bailey, W. H., and Son
Evans, Sons and Co.
Ingram and Son
Lynch and Co.
Maw, Son and Thompson, S.
Sanger and Son
Schutze, F., and Co.

ENGRAVERS
Barker, W., and Son
Corsan, J. R. (Glass)

ESSENTIAL OILS
Bush, W., Son and Co.
Cooking (Japan Peppermint)
Cummock, J.
Duckworth and Co.
Evans, Sons and Co.
Fitzsimmons and Fearnley
Fratelli de Pasquale and Co.
Hodgkinsons, Treacher and Clarke
May and Baker
Stevenson and Howell
Symes and Co.
Tombarel Frères
Treatt, R. C.
Warrick Brothers
Wright, Layman and Umney
Vogt, G., and Co.

ESSENCES
Beckett, W.
Brathy and Hinchliffe (Ld.)
Burgoyne, Burbidges and Co.
Bush, W. J., and Co,
Cummock, J
Duckworth and Co.
Fitzsimmons and Fearnley
Goodall, Backhouse and Co.
Hay, W.
Idris and Co.
May and Baker
Oldfield, Pattinson and Co.
Stevenson and Howell
Tyrer, P. (Anchovies)
Woolley, Sons and Co

ETHER
Claudon.
Duncan, Flockhart and Co.
Howards and Son
May and Baker
Robbins
White, A., and Sons
Woolley, Sons and Co.
Wright, Layman and Umney

EXTRACTS, FLUID
Allen and Hanburys
Barber, G., and Co.
Burgoyne, Burbidges and Co.
Evans, Sons and Co.
Fletcher, Fletcher & Stevenson
Hearon, Squire and Francis
Hooper, B., & Co.
Moss and Co.
Potter and Clarke
Wright, Layman and Umney

EXTRACT, MEAT
Australian Meat Co.
Bovril (Limited)
Brand and Co.
Brown, Hugo, and Co.
Denaeyer's Peptons
Liebig Co.
"Maggi"

EUCALYPTUS
Downie B. I. P. Co.
Tucker, J., and Co.

FEEDING BOTTLS
Breffits, E. and Co., Lim.
Evans, Sons and Co.
Hearn, E. A., and Co.
Hockin, Wilson and Co.
Kilner Bros.
Maw, Son and Thompson, S.
Marriot, E., and Co.
May, Roberts and Co.
Thompson, Walters, Hole and Co. (Limited)
Toogood, W.

FLY PAPERS
Ford, Shapland and Co.

FILTERING
Andrews, R. W.
Doulton and Co.
Lipscombe and Co.
Mawson, Swan and Waddell
Silicated Carbon Filter Co.

FOOD (Infants' & Invalids')
Allen and Hanburys
Baelz, R., and Co.
Bovril (Limited)
Brand and Co.
Bragg, J. L. (Charco'l Biscuits)
Goodall, Backhouse and Co.
Hearon, Squire (Malted)
King, F., and Co., Lim.
Liebig Co.
"Maggi"
Marshall, J.
Mottershead & Co. (Benger's Food)
Nestle, H.

GINGER ALE
Hay, W. (Essence)
Kiumond and Co.
Mills, R. M., and Co.

GLYCERINE
Fink and Co.
Fuerst Bros.
Price's Candle Co.
Van Geelkerken and Co.

GRANULAR PREP
Curtis and Co.
Evans, Sons and Co.
Hearon, Squire and Francis
Hill, A. S., and Son
Kerfoot, T.
Wright, Layman and Umney

GUM
Fink (Arabic, &c.)
Hyde, Nash and Co.
Knight and Co.
Levermore Ang., and Co.
Macnair, J. and D., and Co.
Pronk, Davis and Co.

GUTTAPERCHA
Duncan, Flockhart and Co.

HAIR PREP.
Brodie, J. (Imperial Hair Dye)
Chessbrough Mnfg. Co.
Edwards and Co
Rosene Manufacturing Co.
Trueflitt, H. P. (Limited)

HERB BEER EXTS
Newball and Mason
Oldfield, Pattinson and Co.
Potter and Clarke

HERBALISTS
Butler, McCulloch and Co.
Newball and Mason (Extract of Herbs)
Potter and Clarke (Extract of Herbs)
Wilkinson, A., and Sons (Compressed Hops)

HOMŒOPATHIC
Epps, J., and Co.
Keene and Ashwell
Leath and Ross
Thompson and Capper
Watson and Watts

HOPS
Wilkinson, A., and Sons

HOP ALE ESSENCE
Hay, W.

HYPOPHOSPHITES
Duncan, Flockhart and Co.
Dunn and Co.
Fletcher, Fletcher and Co.
Symes and Co.
Typke and King

HOSPITALS
Bolingbroke House
London Homœopathic

INHALERS
Anderson and Adams
Evans Sons and Co.
Godfrey and Cooke
Hockin, Wilson and Co.
Maw, Son and Thompson, S.
Schutze, F., and Co.
Toogood, W.

INSECTICIDES
Sanford and Co.
Shorey, J. F.
Steiner and Co
Vogt, G., and Co.

INK [See MARKING]
Bewley and Draper
Duncan. Flockhart and Co.

JELLIES (TABLE)
Southwell, C., and Co.

KETCHUP
Tyrer, P.

LAMPS
The Wenham Co. (Limited)

LARD
Ewen J.

LEECHES
Fitch and Nottingham
Potter and Clarke

LIME JUICE
Evans, Sons and Co.
Idris and Co.

LINT
Liverpool Lint Co.
Maw, Son and Thompson, S.
Newsome, C.
Robinson and Sons
Seabury and Johnson

LIQUORICE
Robinson and Wordsworth

LOZENGES
Allen and Hanburys
Blyton, Astley and Co.
Gibson, R., and Sons (Manfrs.)
Hill and Son
Kerfoot, T.
Martindale, W.
Pascall, J.
Raimes and Co.
Randall and Son
Warrick Bros.

MACHINERY
Beyer Freres.
Burroughs, Wellcome and Co.
Carter, J. H.
Goodall, E. F.
Holroyd & Co. (Limited)
McFerran, J. A.
Melin, C. (Capsuling)
Pontifex and Wood
Werner and Pfleiderer

MAGNESIA
Andreae, Oscar, and Co.
Bush, W., Son and Co.
Dinneford
Henry, T. and W. (Calcined)
Hill and Sons, A. S.
Kerfoot, T. (Citrate)
Murray, Sir James, and Son

MALT EXTRCT, &c.
Baelz. R. and Co.
Burroughs, Wellcome and Co. (Kepler's)
Hearon, Squire and Francis
Hockin, Wilson & Co.
Oppenheimer Bros. and Co.
Pure Malt Extract Co.

MARKING INKS
Barber, G., and Co. (Crimson)
Hickisson, J.

MEDICINE CHSTS
Day, Son and Hewitt (Veterinary)
Day and Sons (Veterinary)

MENTHOL
Al Menthol Depot, A. W. Shirley, Proprietor
Cocking and Co.
Hockin, Wilson and Co.
Maw, Son and Thompson, S.
Shirley, A. W.

MERCURIALS
Ewerst Brothers
Howards and Sons
May and Baker

METHYLATED SPIRITS
Burrough, J.
Harvey, J. & W., and Co.
Jones and Co.
Macnair, J. and D., and Co.
Phillips, G., and Co.

METHYLENE
Robbins, J., and Co

MICROSCOPES
Darton, F., and Co.
Perken, Son and Rayment

MILK
Nestle, H. (Condensed)

MIXING MACHINERY
Bracher and Co.
Carter, J. H.
Werner and Pfleiderer

MORPHIA
Macfarlan, J. F., and Co.
Smith, T. and H.

OILS, PAINTS, &c.
Anglo-American Oil Co. (Lim.)
Colthurst and Harding
Fox, W., and Sons
Pronk, Davis and Co.

OPTICIANS
Darton, F., and Co.
Perken, Son and Rayment
Raphael, J., and Co.

OINTMENT BASES
Burroughs, Wellcome and Co.
Chesebrough (Vaseline)
Grindley (Petroleum Jelly)

OPHTHALMIC
Pomies, Dr.

OTTO OF ROSE
Fuerst Bros.
Shipkoff and Co.
Treatt, R. C.

PEPSINE, &c.
Burroughs, Wellcome and Co.
Fletcher, Fletcher & Stevenson
Newbery (Ingluvin)
Warner and Co. (Ingluvin)
Zimmermann

PAPAIN PINKLES
Kuhn, B.

PARALDEHYDE
Zimmermann, A. and M.

PATENT AGENTS
Dukes, B.
Horn and Son

PATENT MEDICINES
Alofas Co.
Armbrecht, Nelson and Co
Atkinson and Barber (Infant Preserv)
Barclay and Sons (Limited)
Beecham (Pills)
Bragg and Co.
Crouch, F. B. (Wafers)
Da Silva and Co.
Edwards and Son
Evans, Lescher and Webb
Fenning's (Powders)
Geddes Manufacturing Co.
Goodall, Backhouse and Co
Grosgurin, C.
Holloway (Pills and Oint.)
Hop Bitters Co. (Limited)
Invigorine Manufacturing Co.
John's Liver Pills
Kemp, W. H.
Lalor (Phosphodyne, &c.)
Lincoln (Clarke's Mix.)
Msy, Roberts and Co.
Newbery and Sons.
Fowell, A. E. and Co. (Moorseed Bitters)
Roberts and Co. (Foreign)
Rosene Manufacturing Co.
Sequah (Limited)
Smith, Sam
Swift's Specific Co.
Wilson, A. (Bunter's Nervine)

PERFUMERY, FANCY SOAPS
Blondean and Co.
Burroughs, Wellcome and Co
Chesebrough Manfctring Co.
Chiswick Soap Co.
Cook, E., & Co.
Coward and Co.
Dee Oil Co. (Limited)
Durrant, Geo.
Evans, Sons & Co. (Possoline)
Ewen (Soaps)
Farina, J. M.
Girard Fils
Greensill, T. S., and Son
Johnson and Co.
Mann, C. A., and Co.
Maw, Son and Thompson
Mouilla Liquid Soap Co., Lim.
Newbery and Sons (Bardoes')
Osborne, Bauer & Cheeseman
Pears' Soap
Price's Patent Candle Co.
Price and Co.
Rosene Manufacturing Co.
Ronse & Co.
Sainsbury, S. (Lav. Water)
Shirley, A. W
Steedman, J.
Taylor, J. N.
Thompson, Walters, Hole and Co (Limited)
Treatt, R. C.
Truefitt, H. P. (Limited)
Vigis, L.
Violet
Vogt, G., and Co.
Warrick Brothers
Wedlake, M.
West, T. (Okeil's Mona)
Woolley, Sons & Co. (Powder

PETROLEUM
Anglo-American Oil Co. (Lim.
Dee Oil Co. (Limited) (Jelly)

PEPPERMINT OIL
Cocking and Co.

PEROX. OF HYDE
Dunn and Co.
Robbins and Co.

PHOTOGRAPHIC
American Camera Co.
Botwright and Grey
Howards and Son (Chemicals
Marion and Co.
May and Baker
Orme, J., and Co.
Perken, Son and Rayment
White, Alfred, and Sons

PHARM. PREPS.
Allen and Hanburys
Baelz, R., and Co.
Barron, Squire and Co,
Billault
Brady and Martin
Burgoyne, Burbidges
Burroughs, Wellcome & Co
Chantcand, G.
Chassaing and Co.
Claudon, G.
Dee Oil Co. (Limited)
Duncan, Flockhart and Co.
Fellows
Ferris and Co.
Fletcher (Lqrs. for Syrups)
Fruneau, E.
Giles Schacht & Co.
Greeff, R. W., and Co.
Hearon, Squire and Francis
Hewlett and Son
Hill, A. S., and Son
Hooper, B., and Co.
Howards and Sons
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Lorenz, H.
May and Baker (Phenacetine
Rankin and Borland
Ricqles and Co.
Roberts and Co.
Soden Mineral
Symes and Co.
Tucker, J., and Co.
White, Alfred, and Sons
Willows, Francis and Butler
Woolley, Sons and Co.
Wyleys (Various)

PINE PRODUCTS
Burroughs, Wellcome and Co
Stern, G. and G.

PILLS (Coated, &c.)
Allen and Hanburys
Beecham, Thomas
Eade's Gout Pills
Evans, Sons and Co.
Frore, L.
Holloways
McKesson and Robbins
Newbery and Sons
Richards, J. M.
Towle, E. T.
Warner, W. R. & Co. (Coated)
Wyleys and Co.

PILL MACHINES
Pindar, J. W.
Robertson, J., & Co. (Coating)
Toogood, W. (Coater)

PLASTERS
Cooper and Co.
Evans, Sons and Co.
Johnson and Johnson
Mather, W.
Quilliam, J., and Co.
St. Dalmas, A. De
Seabury and Johnson
Thompson, M. F
Young, H.

PODOPHYLLIN, &c.
Keith, B., and Co
Smith, T. and H.

POLISHING
Bradley & Bourdas (Alhatum)
Fordhnm, W. B., and Sons (Limited)
Oakey, John, and Sons
Griffiths, T. M.

PORCELAINGOODS
Toogood, (E.c. Pots, regist.)

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Bowers Bros.
Cyclostyle Co.
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Ford, Shapland and Co.
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Stern, C. and G.

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Andreae, Oscar, and Co
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Howards and Sons
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Evans, Sons and Co.
Fevre
Geraut, E. and Co.
Idris and Co.
May, Roberts and Co.

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Goodall, Backhouse and Co.
Tyrer, P.

SCHOOLS, &c.
Central School of Chemistry and Pharmacy
City School of Chemistry and Pharmacy (Lim.)
Liverpool School of Pharmacy
London Homœopathic and Medical School
Manchester College
South London School of Pharmacy, Lim.
The School of Pharmacy
Westminster College

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Blondeau and Co. (Vinolia)
Chiswick Soap Co.
Cook, E., and Co.
Fordhnm, W. B., and Sons
Pears' Soap
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Bowling and Govier
Bygrave, J. and W.
Corsan, J. R.
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Hawke and Son
Howlett, S.
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Poths, H., and Co.
Treble, G., and Co.
Trehle, G., and Son
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SMELLING BOTTLE
Dr. Mackenzie's Catarrh

SPONGE
Cresswell Bros.
Evans, Sons and Co.
Maw, Son & Thompson (Bags)
Peterson, M., and Co.

SPIRIT
Burrough (Pure and Methyl.)
Harvey, J. W., and Co.
Jones and Co. (Methyl.)
Macnair, A., and Co.
Macnair, J. and D., and Co.
Phillips and Co.
Smith, Stephen and Co.

SPECTACLES
Botwright and Grey
Darton, F., and Co
Perken, Son and Rayment

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Pollard, A. W.

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SURGICAL
Ayrton and Saunders
Bailey, W. H., and Son
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De Luca, G. V.
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Haywood, J. H.
Ingram and Son
Liverpool Patent Lint Co.
Maw, Son and Thompson
Mestivier and Co.
Robinson and Sons
Schutze, F., and Co.
Schoenfeld Frères
Thompson, Walters, Hole and Co. (Limited)
Wood, Vincent
Woolley, Sons and Co.

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Critchley (Gloss)

SUGAR
Gibson, R., and Sons

SULFONAL
Burroughs, Wellcome and Co.
May and Baker

SYPHONS
Barnett and Foster
Bratby and Hinchliffe (Ld.)
Durafort
Favarger and Co.
Fevre, T.
Gernut, E., and Co.
Kilner Bros.
Prudon and Dubost

SYRINGES
De Luca, C. V.
Schoenfeld Frères

SYRUPS
Fletcher, Fletcher (Liquors)
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Stokes, C. R. & Co.

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French and Langdale
Gt. Tower St. Tea Co.
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Peacock, M. & B.
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Berry, F. H.
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Fordham, W. B., and Sons
Hopgood and Co.
Mumford, G. S.
Quelch, H. C.
Simon, J.
Truefitt, H. P. (Limited)

TOOTH PASTE
Jewsbury and Brown
Quelch, H. C.
Sutton, C., and Co. (Block)
Wilson, A. (Bunter's)
Woods, M. (Areca)

TRADE MARKS
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Horn and Son

TRUSSES
Ayrton and Saunders
Bailey, W. H., and Son
Haywood, J. H.
Wood, V.

TYPE-WRITING
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Richards, J. M.

URETHANE
Howards and Sons

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Vaccine Association (Lymph)

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Battle, J. R.
Sanford and Son
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VASELINE
Chesebrough Mnufctring Co.

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Braggi, P., and Co.
Day and Sons
Day, Son and Hewitt
Elliman, Sons and Co.
James, W. H. (Blister)
Méré de Chantilly, P
Rookledge, J
Spratts (Dogs)
Sutton, F., and Co.
Walker, Troke and Co.
Wyleys and Co

VINEGAR
Newham and Pickard

VINOLIA (Superfatted Medical and Toilet)
Blondean and Co.

WHOLESALE AND EXPRT DRGGSTS
Allen and Hanburys
Barron, Harveys and Co.
Brothers, J. and Co.
Burgoyne, Burbidges and Co
Bush, W., Son and Co.
Clay, Dod and Co.
Coward, G. F., and Co.
Davy, Humphrey, and Co.
Evans, Sons and Co.
Evans, Lescher and Webb
Evans and Sons (Limited)
Faulding, F. H., and Co.
Ferris and Co.
Fox, W., and Sons
Goodall, Backhouse and Co,
Harker, Stagg and Morgan
Hearon, Squire and Francis
Hewlett and Son
Hill, A. S., and Son
Hodgkinsons, Treacher and Clarke
Lofthouse and Saltmer
Macfarlan, J. F., and Co.
Oldfield, Pattison and Co.
Potter & Clarke (American
Sumner, R., and Co.
Symes and Co.
Thompson and Capper
Thompson, Walters, Hole and Co. (Limited)
Walker, Troke and Co.
Willows, Francis, and Butler
Woolley, Jas., Sons and Co.
Wright, Layman and Umney
Wyleys and Co.

WINES, SPIRITS
Colemn and Co. (Meat and
Durrant, G. (Orange) Malt.
Goodall, Backhouse and Co.
Harvey, J. and W., and Co.
Idris & Co.
Jones and Co.
Millar, A., and Co
Phillips, G., and Co.
Robinson, B.
Smith, S., and Co. (S.V.R.)

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Estab. A.D. 1746.
1 & 3 KING EDWARD ST.
LONDON, E.C.

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BERDOE'S Triple Extracts and Bottled Perfumes.
BRAIN SALT.
BROCKEDON'S Patent Compressed Pure Bicarbonate of Soda or Potass; Chlorate of Potass, &c.
COLLINS'S Cephalic Snuff.
"CUTICURA" Remedies.
DALBY'S Carminative (Gell's—the original).
DOUGHTY'S Voice Lozenges.
GOURAUD'S Oriental Cream.
GUILD'S (Dr.) Green Mountain Asthma Cure.
HIMROD'S Cure for Asthma.
INGLUVIN (W. R. Warner & Co.'s).
JAMES'S (Dr.) Fever Powder (the only true) and Analeptic Pills.
JAYNE'S (Dr.) American Medicines.
KIDDER'S American Pastilles.
OX'S (Dr.) Liquid Dentifrice.
RAYNAUD'S Oil of Lavender ("Mont Blanc").
RYAN'S Pectoral Essence of Coltsfoot.
STEERS'S Camomile Drops.
„ Opodeldoc (the only genuine).
SWAYNE'S All-Healing Ointment.
WARNER & CO.'S Antiseptic Pastilles, Bromo-Soda, Sugar-Coated Pills, Parvules, Ingluvin, Quinamine, &c.
"Ye Old Englyssche Cherrye" Tooth Paste,

And many other British and Foreign Proprietary Goods.

THE SPECIFIC for SEA-SICKNESS.

Retail 2/9.



CURES HEADACHES AND BRAIN FATIGUE.

TO MANUFACTURERS

of Goods in sale, or likely to sell, amongst Druggists. F. Newbery & Sons' House offers exceptional facilities for the effective starting in Great Britain of goods previously unknown. Depôts undertaken. Stock Warehoused and covered by Insurance. Advertisements issued and controlled, and the details of a "succursale" carefully kept in hand.

"Ye Old Englyssche Cherrye Tooth Paste."

The best & most attractive "Shilling" Tooth Paste in the market.



Sells at sight. The Pot is very much larger than the above facsimile.

SPECIALITIES.

LOW QUOTATIONS TO WHOLESALE BUYERS.

NEWBERY'S ADHESIVE PLASTER
„ CARDED SPONGES.
„ CHEST PROTECTORS
„ CARBOLIC SOAP, per 7-lb. box, 4/3.
„ COAL TAR SOAP in tinfoil, per 7-lb. box (4's or 5's), 4/.
„ COMBS.
„ CORKS.
„ CORN PLASTERS.
„ COTTON WOOL.
„ COURT PLASTER.
„ ELASTIC STOCKINGS.
„ ENEMAS.
„ FEEDING BOTTLES.
„ FLESH GLOVES.
„ HAIR BRUSHES.
„ LINT.
„ MENTHOL CONES.
„ NAIL BRUSHES.
„ OILED SILK.
„ RESPIRATORS.
„ SMELLING SALTS.
„ SPONGE, in original cases, ½ cases, ¼ cases.
„ SPONGE BAGS.
„ TOOTH BRUSHES.
„ TRUSSES, and

DRUGGISTS' SUNDRIES GENERALLY.

TO SHIPPERS: *NEWBERY'S ANNUAL CATALOGUE (F. Newbery & Sons, Established A.D. 1746, 1 & 3 King Edward Street, Newgate Street, London) of Proprietary Medicines, Druggists' Sundries, &c., nearly 600 pages, should prove a useful and profitable book of reference. It will be mailed on application with Trade Card, to any part of the world.*

WM. R. WARNER & CO.

PHARMACEUTICAL CHEMISTS,

DEPÔT:—F. NEWBERY & SONS,

1 & 3 KING EDWARD STREET, NEWGATE STREET, LONDON, E.C.

Complete list will be sent post free (on request) to Chemists and Merchants in any country.

BROMO-SODA (Registered.)

Bromide of Sodium with Caffeine, in the Granular form. Very carefully and evenly made. Invaluable in Sleeplessness, Brain Fatigue arising from overwork, &c. The *Lancet* (Aug. 6th, 1887, p. 265) states that "the sodium compound does, in fact, agree better (than the potassium salt) with some stomachs."

PARVULES.

A new class of medicines (minute pills) designed for the administration of small doses for frequent repetition in cases of children and adults. It is claimed by some practitioners that small doses given at short intervals exert a more salutary effect. The elegance and efficiency of Parvules leave nothing to be desired

PILL VASES FOR DISPLAY IN PHARMACIES.



The Vases are fitted with hand-painted, gold-bordered Labels, of which the following are usually in stock. It is to be noted that the purchaser should, when ordering, state explicitly the FORMULA and VASE-LABEL required, as for example —"Three Vases, No. 120," labelled "Aperient," "Liver," and "Compound Podophyllin" Pills. Soluble Sugar-coated:—

Antibilious Pills
Aperient Pills
Army and Navy Pills
Aromatic Cachous for the Breath
*Cathartic and Liver Pills
Compound Colocynth Pills
,, Phosphorus Pills
Compound Phosphorus and Quinine Pills
Compound Podophyllin Pills
,, Steel Pills
Cough Pills
Digestive Pills
Dinner Pills
Female Pills
Liver Pills
Nerve and Tonic Pills
Neuralgic Pills
Pil. Cathart. Comp.
,, Rhei Co.
Podophyllin Granules
Purifying Granules
Tonic Pills

* Particular attention is invited to Pil. Cathartic and Liver, No. 120, which has been very generally approved by the Trade and the Public wherever introduced.

SUGAR-COATED PILLS.

Unequalled in their medicinal properties or in SOLUBILITY, the best ingredients being invariably employed. W. R. Warner & Co. claim the art of Sugar-Coating, which, while ensuring the adequate permanency of the coating, avoids the drying of the enclosed mass so hard as to render it *insoluble* and *inert*.

INGLUVIN.

The essential principle of the gizzard, and bearing the same relation to poultry that pepsin does to the higher animals. A powerful nitrogenous radical was (about 1850) discovered in the gizzard, which was shown by experiment to possess many of the properties of pepsin. Where the latter refuses to act, and where, in severe cases, it has even been rejected by the stomach, Ingluvin has effected relief rapidly and with ease. (Per oz. bottle, 4*s.* 6*d.*)

F. NEWBERY & SONS (Estab. A.D. 1746), 1 & 3 King Edward St., London, E.C.

BERDOE'S TRIPLE FRENCH PERFUMES

F. NEWBERY & SONS

Proprietors,



1 & 3 King Edward Street, London, E.C.

THESE **PERFUMES** have been known to the trade for many years past, and their steadily increasing sale is the best proof of the appreciation in which they are held. Notwithstanding that the prices of some brands of perfumes have been reduced, **F. NEWBERY & SONS** find it both impossible and needless to offer any other advantages to buyers than—(1) the excellent quality of the Perfumes themselves, (2) their price. The object kept in view is not to produce goods which may be sold at a given price and leave a given margin of profit, but to produce such as shall **equal or surpass a given standard of quality.**

Since the purchase of Dr. Berdoe's recipes many improvements have been introduced into the process of manufacture, extraction, &c., with a view of keeping pace with a rapidly increased sale, and also with the result of greatly enhancing the quality of the Essences and maturing their condition. The *matières premières* are procured from the best markets of Europe, and, wherever possible, from first sources. Very great care and attention are devoted to this department, and no efforts or expense are spared that high quality may be maintained.

Bottles not charged for, but customers should observe that the Registered Trade Mark Label in *Blue Ink* (*see above*) is pasted over the cork of each bottle of Berdoe's Triple Extracts.



Facsimile of Bottle of Berdoe's Triple Perfume.

BERDOE'S TRIPLE FRENCH ESSENCES.

In Plain Stock Bottles of 20 oz., 10 oz., and 5 oz.

		£	s.	d.
Ess. Bouquet, Frangipane, Jasmin, Jockey Club, Millefleurs, New Mown Hay, Opoponax, Patchouli, Rondeletia, Stephanotis, Ylang Ylang	per 20 oz.,	0	8	7
	per 10 oz.,	0	4	4
	per 5 oz.,	0	2	3

The above are the leading Essences, and to these the special attention of customers is asked. Those who desire greater variety will find in "Newbery's Catalogue" a more extended list.

		£	s.	d.
Violets, Wood Violet	per 20 oz.,	0	11	3

White Rose, 20 oz., 9*s.* 10*d.*; 10 oz., 5*s.* 1*d.*; 5 oz., 2*s.* 7*d.*

		£	s.	d.
Eau de Cologne, Lavender Water	per 20 oz.,	0	4	4
	„ 10 „	0	2	3
	„ 5 „	0	1	2

Berdoe's Perfumes, in Handsome Show Bottles for the Counter, Rose Cut Stoppers, Vitrified Opal Shield Labels with Gold Border and Black Letters.



Sketch showing an assortment of 20-oz. and 40-oz. Berdoe's Show Bottles. Height of two centre (round) Bottles, to top of Stoppers, about 9¾ inches. Height of remaining (oval) Bottles, about 9¼ inches to top of Stopper. Labels are gilt-bordered, and written in Black on a permanent White Enamel.

Ess. Bouquet, Frangipane, Jasmin, Jockey Club, Millefleurs, New Mown Hay, Opoponax, Patchouli, Rondeletia, Stephanotis, Ylang Ylang	In 20-oz. Show Bottles, Oval, 11/6 each.
Moss Rose, White Rose, Wood Violets	In 20-oz. Show Bottles, Oval, 13/- each.
Eau de Cologne, Lavender Water	In 40 oz. Show Bottles, Round, 11/6 each.

Berdoe's Perfumes for Retail—

Triple Perfume in Oval Stoppered Bottles (4-oz. Miniature of Counter Bottles), with Vitrified Labels. In handsome cases of 1-12 or 1-6 dozen .. .. per doz. £ 2 s. 8 d. 0

MEDICINAL HERBS,

IN PACKETS.





Registered Trade Mark

ALL KINDS,

7/-

PER GROSS.

In 3 and 6 dozen Boxes, assorted to order.



Full particulars given with every Packet as to the properties and uses of each Herb.

A Special Pamphlet, entitled "POPULAR HERBAL REMEDIES," is now issued with these Packets, giving full particulars as to the uses of each remedy, and supplying a copious index to diseases.

FLOWER SEEDS,

IN PENNY PACKETS.

These Seeds are Packed in Coloured Pictorial Packets, and may be had in Two-Gross Cases or Mounted on Half-Gross Cards.

Price 6/- per gross.

Price Current, with full list, on application.



POTTER & CLARKE,

WHOLESALE AND EXPORT BOTANIC DRUGGISTS,

5, 6, & 7 RAVEN ROW, Artillery Lane, LONDON, E.

A NEW SYSTEM.

SUSPENSORY BANDAGES

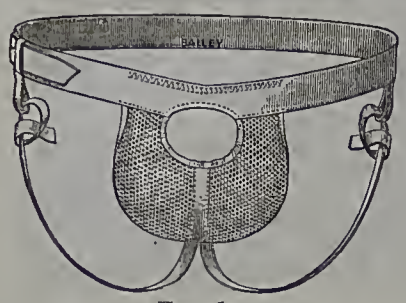


Fig. 1.

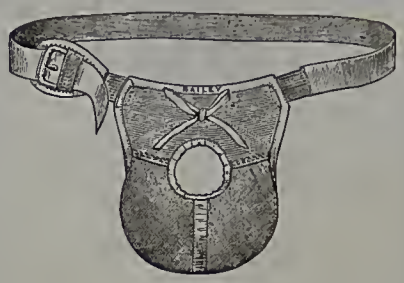


Fig. 2.

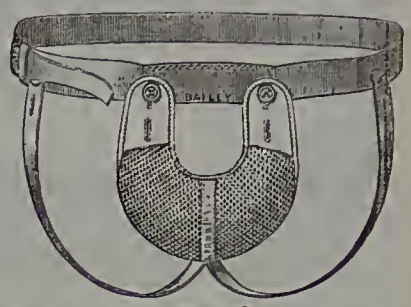


Fig. 3.

Everyone knows the trouble and difficulty attending the sale and fitting of Suspensory Bandages, and everyone knows, too, the impossibility of repeating an order with certainty and satisfaction.

W. H. BAILEY & SON HAVE SIMPLIFIED THIS.

Their Suspensory Bandages are all numbered, and each one in a separate box, and marked so as to show the kind of bandage and the size of the bag. The various kinds (as per list below) are made in 3 sizes:—

A denotes Small Size Bag.
B „ Medium or Ordinary Bag.
C „ Large Bag.

No unpacking for comparison, no confusion, trouble, and consequent soiling of the goods are necessary. If one is not suitable, a larger or smaller one can at once be given, and when suited the kind and size, such as 2 A, 4 B, &c., can be registered for future orders.

THE SMALLEST STOCK CAN THUS BE COMBINED WITH THE GREATEST VARIETY.

No. 1.	Cotton Bags and tape under-straps, as Fig. 1	per doz.	8/
„ 2.	Cotton Oxonian, with drawing strings to contract the bags, as Fig. 2 (Sell well)	„	10/
„ 3.	Silk Bags and tape under-straps, Fig. 1	„	20/
„ 4.	Silk Oxonian, with drawing strings to contract the bags, Fig. 2 (Sell well)	„	18/
„ 5.	Silk Oxonian, bags bound with elastic, Fig. 2	„	24/
„ 6.	Silk Oxonian, superior quality, bands of buff jean, with drawing strings to contract the bags	„	24/
„ 7.	Silk Bags to button on, with tape under-straps	„	22/
„ 8.	As Fig. 3, silk bags to button on, with under-straps to button	„	24/
„ 9.	Silk bags to button on, with under-straps, bands and under-straps entirely of silk elastic, 1¼ in. wide	„	33/
„ 10.	The American Army Suspenders, bands of elastic web, fine silk bags, bound with elastic, bags to button to band	„	30/

The prices are LOW. The make OUR OWN—superior.

MANUFACTURED BY

W. H. BAILEY & SON,

Wholesale Truss and Surgical Appliance Manufacturers,

38 OXFORD STREET, LONDON.

WHOLESALE CATALOGUE AND TERMS ON APPLICATION.

"Profitable Business"

If you desire "Profitable Business" we warmly recommend to your notice our 6d Boxes of Voice Pellets of Cocain Pot. Chlor et Borat.

If you handle our Jujubes and Pastilles you will consider it "Profitable Business" because they do not stick together but are bright, and will please your Customers.

It is "Profitable Business" to deal in our Bronchial Lozenges, because your friends will tell you that they will not be without them.

"Profitable Business" may be done in our Chlorodyne Lozenges, because they are good, and reasonable in price.

If neither to you have no account with us, you will find it "Profitable Business" to have a place in our Ledgers, because we are in Business, to do Business, and Consider our Customers in Every detail.

If you are a buyer of Chlorodyne and wish it to be "Profitable Business" ask for samples and prices of ours, which has been before the trade for Twenty Years

Blyton Ashley & Co

Manufacturing Pharmaceutical Chemists

Manchester.



View of Grafle, Alpes Maritimes, France, from the S.W.
(BY PHOTOGRAPHIC PROCESS.)

Warrick Brothers

LONDON—PARIS—GRASSE, and NEW YORK.

(LONDON ADDRESS—18 Old Swan Lane, E.C.)

HEADQUARTERS
FOR
Raw Materials for Perfumery.

Effential Oils.

Pommades et Huiles Parfumées. French Waters.

Extraits aux Fleurs. Olive and Almond Oils.

Ambergris, Civet, Muſk, Orris, Tonquin Beans, Vanilla, etc., etc.

(B. A. & Co.—Please don't Copy.)

(B. A. & Co.—Please don't Copy.)

Warrick Bros.' ESSENTIAL OILS

Palermo & Messina Lemon, Bergamot, Otto of Roses, Pine Oils, Oil of Sandal, Peppermint

ARE GENUINE.

Warrick Bros.' PERFUMES

White Rose, Lily of the Valley, &c., in 1-lb. globe stoppered bottles, 10s. per lb.

ARE SWEET & LASTING.

Warrick Bros.' CACHOUS

Real Heliotrope, Real Roses, Real Violets — 3s. per lb. 4s. per dozen.

ARE "THE CACHOUS."

Warrick Bros.' LOZENGES

Compound Sulphur, Antacid, Proprietary — and all others.

ARE "A 1."

Warrick Bros.' GLYCERINE PASTILLES

Glycerine, Glycerine and Black Currant, Delectable — &c.

ARE SMALL & BRIGHT.

Warrick Bros.' CAPSULES (FLEXIBLE)

ALL KINDS MADE.
Supplied in bulk (with labels) or in boxes (with name and address).

ARE UNSURPASSED.

Warrick Bros.' PRICE LIST

Houses abroad are requested to write direct for Export List.

IS SENT ON DEMAND.

WARRICK BROTHERS,
18 Old Swan Lane,
LONDON, E.C.

THE GEDDES MANUFACTURING COMPANY'S SPECIALITIES.

FACSIMILE OF BOTTLE LABEL.



DR. SPENCER'S ASTHMA CURE.
DR. SPENCER'S CATARRH OINTMENT.
DR. SPENCER'S PURIFIER.
DR. SPENCER'S AMBERINE.
DR. GEDDES' COUGH CURE.
DR. GEDDES' CATARRH PILLS.
DR. GEDDES' LIVER PILLS.
DR. GEDDES' PILANTRA (Pile Cure).
DR. GEDDES' ABIES CANADENSIS.

THE GEDDES MANUFACTURING COMPANY is under direct supervision of Mr. William E. Geddes (the principal owner), who is now, and has been for five years, the European Manager of The Charles A. Vogeler Co., Proprietors of St. Jacobs Oil. Mr. Geddes is provided with abundance of capital, and his wide experience and success as an Advertiser, combined with the actual merit which our Specialities possess, is a safe guarantee that Dr. Spencer's Asthma Cure and auxiliary remedies are to become staple goods. Before the 1st of March, 1890, our Advertisements will be appearing in upwards of 1,200 good English Newspapers in yearly contract. The Dealer will be afforded every facility for handling the above remedies. Correspondence is solicited, which shall have our prompt and courteous attention.

THE GEDDES MANUFACTURING CO.

249 High Holborn,

LONDON, W.C.

NOTE.—We are in no way connected with any person or firm.

"For this relief, much thanks."

HAMLET
ACT I.
Sc. I.



Anything that gives
RELIEF FROM PAIN
must needs be
A GREAT BLESSING

ST. JACOBS OIL
does even more; it
CONQUERS PAIN

We have now in stock, ready for delivery, a large assortment of Show Cards, Picture Cards, Transparencies, &c., of original designs. We have also between thirty and forty different designs of Illustrated Counter Wrappers, in sizes best suited to the general retail trade. Our Illustrations are wholly original, by our own Special Artists, and are Copyrighted. These Wrappers are printed on one side only, with wide margins; the paper is clear white, heavy and strong, and will be found most useful.

We shall have much pleasure in sending, carriage paid, assorted parcels of the above, to any dealer who will undertake to use same to our mutual advantage.

Our friends who have contracts with Sutton or other London carriers will kindly mention that fact when favouring us with their instructions. Foreign buyers will please name London Houses for enclosure.

PRICE LIST.
6 Dozen, 21/6. Cash with order.
Special Price List for St. Jacobs Oil in Bond (London and Liverpool) for Export.

p p. THE CHARLES A. VOGELER CO.
WILLIAM E. GEDDES, Manager,
45 FARRINGDON ROAD, LONDON, E.C.

Paris House, Pharmacie Kleber, Avenue Kleber, 72,
PARIS, FRANCE.

Telegraphic and Cable Addresses—
"RUMATIN" LONDON (Day).
"EDUCIBLE" LONDON (Night).
"GEDDES" PUTEAUX, PARIS.

SYR. HYPOPHOS. CO., FELLOWS.

CONTAINS THE ESSENTIAL ELEMENTS to the Animal Organisation—Potash and Lime;

THE OXIDISING AGENTS—Iron and Manganese;

THE TONICS—Quinine and Strychnine;

AND THE VITALISING CONSTITUENTS—Phosphorus, combined in the form of Syrup with SLIGHT ALKALINE REACTION.

IT DIFFERS IN EFFECT FROM ALL OTHERS, being highly susceptible to oxidation during respiration pleasant to taste, acceptable to the stomach, and harmless under prolonged use.

IT HAS SUSTAINED A HIGH REPUTATION, particularly in the treatment of Pulmonary Tubercnlosis, Chronic Bronchitis, and other affections of the respiratory organs. Is employed also in various nervous and debilitating diseases with success.

ITS CURATIVE PROPERTIES are largely attributable to Stimulant, Tonic, and Nutritive Qualities, whereby the various organs are recruited.

ITS ACTION IS PROMPT, stimulating the appetite and the digestion; it promotes assimilation, and enters directly into the circulation with food products.

The prescribed dose produces a feeling of buoyancy, and removes depression and melancholy; hence it is of great value in the treatment of mental and nervous affections. From its exerting a double tonic effect, and influencing a healthy flow of the secretions, its use is indicated in a wide range of diseases.

NOTICE.—CAUTION.—The success of Fellows' Hypophosphites has prompted certain persons to utter substitntes Mr. Fellows, having examined several of these, finds no two samples identical, and all differ from the veritable, in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, in the property of retaining the strychnine in solution, and in the medicinal effects.

SPECIAL NOTICE.

Lest any Members of the Medical Profession may be misled by the many specious advertisements of imitators of Fellows' Syrup of Hypophosphites, Mr. Fellows begs to publish the following, viz.—

That he is the sole inventor of the formula of Fellows' Compound Syrup of Hypophosphites, which was discovered and prepared for the first time for his own use in 1865, when out of health;

That the testimonials bear date from the year 1868;

That the genuineness of the early testimonials was certified by Aaron Alward, Esq., M.D., Mayor of the City of St. John, Province of New Brunswick, Canada, and the great seal attached on 6th February, 1868; and

That the formula of the Syrup has never since been changed.

Mr. Fellows therefore refers to the printed form surrounding every bottle, where the letters may be found in detail.

As cheap substitntes are frequently dispensed instead of the genuine, Mr. Fellows can only advise that his Syrup should be prescribed in the original bottles, 4*s.* or 7*s.*, where the distinguishing marks will prevent imposition.

To guard against possible substitution and disappointment in prescribing, please write "Syr. Hypophos. Fellows."

WHOLESALE AGENTS—

BURROUGHS, WELLCOME & CO., SNOW HILL BUILDINGS, LONDON, E.C.

TALK WITH THE TRADE.

Have you made the experiment of keeping right up to the times with the Progress of Pharmacy?

Have you at any time included in your stock a *sufficiently complete* variety of the reliable and convenient-for-dispensing products which we have had the pleasure of introducing to the Profession and Trade?

If you have, then, like many others in various parts of the world, you find the investment both satisfactory and profitable, and therefore continue in it, and are always disposed to develope it.

If not, we offer you our hearty and friendly co-operation, provided you sell our products at a good profit.

Our goods *are introduced to Medical Men and the Trade*, and not to Grocers. Chemists only are advertised as keeping our products. Good prices can therefore be readily maintained for them, which we shall help the Trade to secure to the best of our ability.

Intelligent Medical Men are desirous of giving their patients the benefit of every improvement in pharmacy, and manifest their appreciation of a live Chemist, who keeps a complete stock, by sending him their prescriptions and orders.

Some Chemists are always trying to solve the puzzle of how to sell goods they haven't got, or how to give the public what they don't want.

The successful ones have concluded that the only profitable solution is to have the goods in stock, and to let those interested know of it.

For the convenience of the Trade we supply Chemists who stock our goods with brief notes on New Remedies monthly (bearing Chemist's name and address), provided they will take the trouble to send them to the Physicians in their locality promptly every month.

A similar Circular will not be sent to more than one Chemist in the same locality. Chemists are constantly informing us of the increase of their general business through their co-operation with us. We are determined to make it to the interest of every Chemist to make our goods a prominent feature of his business.

Correspondence is solicited and will have our careful attention.

Our products may be ordered through all the Wholesale Houses.

BURROUGHS, WELLCOME & CO., LONDON, MELBOURNE, & NEW YORK.

NEW STEEL

ENAMELLED TABLET.

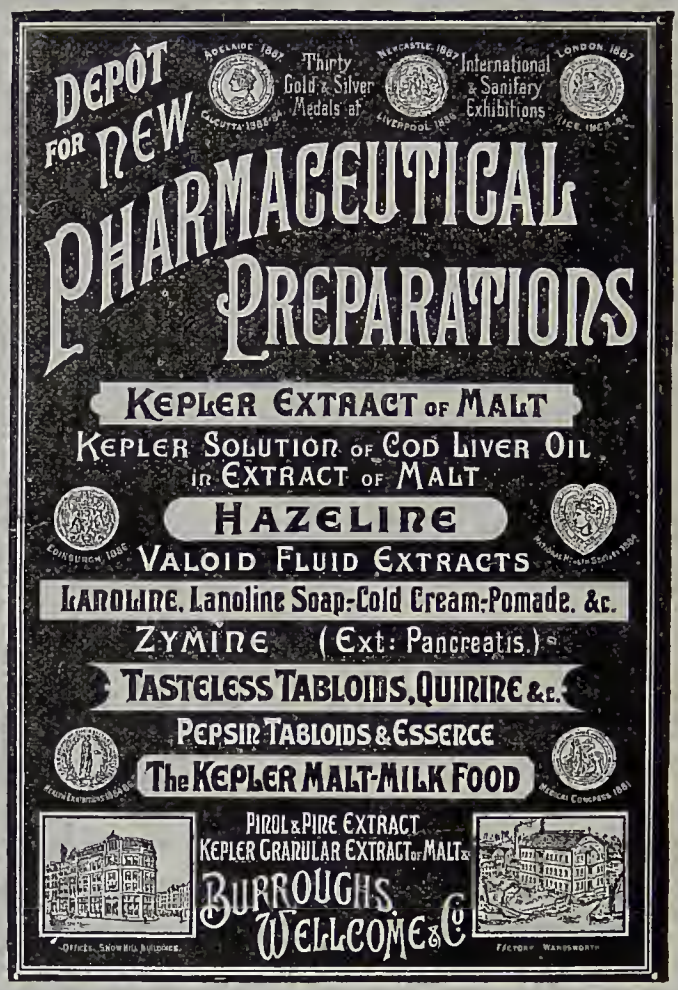
Size, 23 in. by 33 in. Flat or Curved.

AN ATTRACTIVE ADVERTISEMENT FOR THE DRUG TRADE.

SUITABLE FOR OUTSIDE OR INDOOR DISPLAY.

Free to non-cutting Chemists who will keep it in good position.

The subjoined sketch illustrates the new Enamelled Steel Tablet, which is highly appreciated by all Chemists who have seen it. Medical men are also glad to learn from it where our products and new Pharmaceutical preparations generally may be obtained.



The Tablets are enamelled in several colours, the Medals being in silver and gilt. We can supply them in blue or chocolate coloured background. They are weather-proof, and suitable for fastening on outside of business premises.

Can be sent direct or in care of Wholesale House.

A FEW OPINIONS OF CHEMISTS WHO HAVE THEM.

No. 1.—"Re Enamelled Tablet. We have placed it in a prominent situation facing the door, it undoubtedly has attracted attention and consequently has to some extent assisted in increasing the sales of your preparations. We may here tell you that it is the only one we allow to be displayed in our establishment."

No. 2.—"Concerning Tablet, I am happy to say it has certainly influenced the sale of your goods, and inquiries have increased concerning them since it has been exposed. As an effective showcard it has been much admired."

No. 3.—"I have to state your Enamelled Steel Plate, which I have affixed inside my shop, has caused many inquiries for your various preparations, and I find the sale has increased."

No. 4.—"The Enamelled Tablet has been an attraction for my window, and I think has tended to increase the sale of your preparations."

No. 5.—"Respecting the Steel Enamelled Tablet which you so kindly sent me, I have found the same very useful and effective as an advertisement."

No. 6.—"We consider the Enamelled Show Tablet you inquire concerning to be excellently executed, most striking, and attractive to customers (whether displayed within window or upon wall), and certainly calculated to favourably influence the sales of your well-known and increasingly popular productions."

No. 7.—"Respecting the Enamelled Show Tablet, I beg to say I am much pleased with it, have had it hung in prominent position, and that it has received favourable comments from many customers."



"KEPLER" EXTRACT OF MALT



PREPARED ONLY FROM PURE MALTED BARLEY OF THE BEST SELECTED QUALITY

PROPERTIES.

It is light in colour, agreeable in flavour, and especially rich in the valuable properties of Malt, viz., Diastase, Dextrine, Malt Sugar, Albuminoids, Phosphates, &c.

NON-ALCOHOLIC.

Tbe Kepler Extract of Malt is not a fermented product. The nutritive properties are not sacrificed to the formation of alcohol, nor the digestive properties destroyed by heat. It is prepared in vacuo, at a very low temperature.

AGREEABLE.

The flavour of the Kepler Extract of Malt is most agreeable, it being as pleasant as honey. One of the best ways to take it is as a sweetening agent for porridge and other farinaceous foods, or spread upon bread and biscuits.

NUTRITIOUS.

The Kepler Extract of Malt is bighly nutritious for every part of the organisation. It supplies an assimilable form of sugar, which is not liable to acetons fermentation, as is the case with cane sugar. Its phosphates having passed tbrough the vitalising process of plant life are more readily assimilated than phosphates chemically prepared, and its albuminoids and dextrine are ready for immediate assimilation. As a bone-former it is, perhaps, nneqnalled, and is largely prescribed by surgeons in cases of rickets, deficient bony structure, &c.



AS GOOD AS OIL.

The Kepler Extract of Malt is prescribed by many physicians in place of Cod Liver Oil, and eminent medical authorities pronounce Extract of Malt to be preferable to Cod Liver Oil. As, however, the administration of fat is desirable in many cases, the Kepler Solution of Cod Liver Oil constitntes an ideal fat, which is perfectly suitable for nourishing every part of the human frame.



DIGESTIVE.

Tbe Kepler Extract of Malt is a powerfnl digestive agent, owing to the perfect preservation of its diastase in an active form, and repeated analysis has proved the Kepler Extract of Malt to be superior to ordinary articles in this respect.

EMOLLIENT.

The Kepler Extract of Malt possesses remarkable emollient propeities. It also acts as a natural regulator of the bowels, and is useful in small doses in diarrhœa and catarrh of the bowels, it being readily assimilated when other foods are rejected. In large doses it is an efficient aperient in constipation.

IN NURSING.

As a food in fevers and in cases of mal-assimilation, the Kepler Extract of Malt is probably unequalled. It may be given alone or mixed with soda water, and it forms a very agreeable beverage when mixed with half milk and half soda water. Wben mixed with milk it possesses the remarkable property of preventing the heavy clot which forms upon the addition of acid, and nndoubtedly one of the best foods for infants and invalids is made by adding a tablespoonful of tbe Extract to half-pint of milk, with a pinch of bicarbonate of soda, which neutralises the slight acidity usually present in milk.



IN CONSUMPTION.

"The introduction of the Kepler Extract of Malt," says the *Lancet*, "constitutes as important an advance in Therapeutics as was the introduction of Cod Liver Oil." This statement is borne out by the fact that the Kepler Extract of Malt is now used in all the principal hospitals in Great Britain and the Colonies, and, as the *London Medical Record* states, "is the Extract which every physician now prescribes."



IN DYSPEPSIA.

The Kepler Extract of Malt possesses a double advantage in the treatment of Dyspepsia because it has a powerful digestive property in its diastase, and is a most readily assimilable food itself. It is particularly useful in the so-called starcby dyspepsia, which is the result of acetous fermentation, owing to the deficiency of the pancreatic ferment to digest farinaceous foods. In snch cases, tbe Extract is best taken with the food, or as a beverage diluted with soda water, or half milk and half soda water.



NO OTHER NAME.

The Kepler Extract of Malt is known by no other name, but physicians sometimes inadvertently prescribe it under a fancy title, which often results in disappointment. This preparation should be prescribed as "Kepler Extract of Malt," or "Extractum Malti-Kepler," when the physicians will secnre a superior product at a reasonable price.

SAMPLES FREE.

Supplied to tbe Trade in $\frac{3}{4}$-lb. and $1\frac{1}{2}$-lb. bottles, at 22*s.* and 38*s.* per dozen. Retail 2*s.* 6*d.* and 4*s.* each. Above prices subject to nsual discount.

BURROUGHS, WELLCOME & CO., Snow Hill Buildings, LONDON, E.C.

Improved Methods of Administering Remedies Commonly Employed in the Treatment of INFLUENZA.

Influenza is defined by Dr. Bristowe as a "contagious catarrhal affection of the respiratory tract of short duration, but attended with much prostration, and occurring for the most part in wide-spread epidemics."

It is known by many scientific names—those most commonly employed being Peripneumonia Notha (Sydenham), Febris Catarrhalis (Hoffman) and Defluxio Catarrhalis. In the 17th century, in Italy, it was first called Influenza from being attributed to the "influence" of the stars, and this term has since been commonly adopted. In France it is known as "La Grippe." In Russia it is called the "Chinese Catarrh," and in Germany the "Russian Disease."

"The obscurity of its origin; the swiftness with which it spreads throughout a district into which it has been introduced, passes from one city to another city, from one country to another country, thus involving entire continents within very brief limits of time; the shortness of its visitation in any locality; the suddenness and completeness of its disappearance; and the irregularity of its epidemic visitations; all combine to render it the most typical of all epidemic affections" (Bristowe).

Sometimes the disease is limited to a small area, but more commonly it invades a large portion of the earth's surface. In some instances so great has been its prevalence that almost all parts of the world have been attacked simultaneously. Its onset is, in many cases, remarkably sudden. In 1837 it seized the whole of the metropolis in a few days. The most noteworthy epidemics have been those of 1803, 1831, 1833, 1837, 1847, but there have been many other smaller epidemics. In the 1847 outbreak it has been calculated that in London alone no less than two hundred thousand persons suffered, whilst in Paris half the population was attacked.

In previous epidemics it has been noticed that the patient feels chilly or shivers, that there has been persistent headache with a sense of tightness across the forehead, the eyes being tender and watery, the nose discharging a copious acrid fluid, whilst cough has been a troublesome symptom, being often accompanied by oppression of breathing. The debility has been a prominent symptom, being apparently an essential feature of the disease.

In a sketch of the progress of the present epidemic, it is stated in the *British Medical Journal*, January 4, 1890, that the first cases recognised in Europe were observed in St. Petersburg about October 15, and by November 12 it had spread over nearly the whole of European Russia. According to a statement made by Professor Leyden, Influenza broke out in Berlin towards the end of November and spread very rapidly, more than a third of the inhabitants suffering from it. By December 18 it was present in nearly every important town in Germany, from Hamburg in the North to Munich in the South. It was severely felt in Frankfort, and in Mainz the tramway service was suspended owing to the large number of men on the sick list. It attacked Dresden on December 23, and had spread as far South as Prague by December 27. Cases were observed in Paris as early as November 17, but the disease began to assume epidemic proportions about November 26, when a large number of persons employed in the Magasins de Louvre were attacked. The number of cases in this establishment rapidly increased until it reached 670 by December 10. Influenza became epidemic in the United States about December 17, numerous cases (some fatal) being reported from New York City and Boston, Mass.

It is difficult to say when the disease first made its appearance in this country, but there is now no doubt as to its wide-spread prevalence. The mortality has fortunately been relatively small, but the death of the Dowager Empress Augusta shows that in elderly people, and in those in whom the powers of recuperation are small, it often terminates fatally.

From statements with which we have been favoured by many eminent physicians and surgeons, both in London and the provinces, it appears that during the present epidemic the symptoms have differed in many important respects from those previously observed. The catarrhal symptoms have, as a rule, been absent, but the onset has frequently been very sudden, the sufferer being seized apparently in the midst of health. There has been chilliness or shivering amounting, in many instances, to what is called a rigor, and the temperature has been elevated to 103° or 104°, the pulse being much quickened. There have been pains in the limbs and joints, so that at the outset the disease has been taken for rheumatic fever. Profuse sweating has been the rule, and the patients have complained of burning pains in the eyeballs, and violent frontal headache; this has been followed by an excruciating pain in the back, often quite low down. The debility and depression of the vital powers have been prominent symptoms, the sufferer often being confined to bed some days. Sore throat, pleurisy, bronchitis, and inflammation of the lungs are the commonest complications. In some instances the attack has been slight, but in others it has been very serious.

Continued on next page.

Improved Methods of Administering Remedies Commonly Employed in the Treatment of Influenza.

(Continued from preceding page).

As a result of our inquiries, we find that the remedies usually prescribed for the reduction of the fever are Aconite, Quinine, Antipyrin, and Antifebrin.

ACONITE.

Aconite is best given in the form of the Aconite Tabloids, each containing the equivalent of one minim of the tincture. For an adult, one is given every ten minutes for the first hour, and subsequently hourly for five or six hours, or until the temperature falls.



QUININE TABLOIDS.

These are soluble in 10 parts of cold water, whereas ordinary Quinine only dissolves in 730 parts. As the secretions are often scanty and imperfect in conditions where Quinine is required, we may have here one reason why such enormous doses of Quinine seem to be demanded. The deficiency of the acid secretion of the stomach in fever makes it desirable that a soluble form of Quinine should be given.

ANTIPYRIN.

Antipyrin is supplied in five grain Tabloids, one, two, or three being given every four hours, according to the severity of the symptoms.

ANTIFEBRIN.

The Antifebrin Tabloids contain two grains, and the usual dose is from six to ten grains or more.

SALICYLATE OF SODA AND SALOL.

For the relief of the pains in the joints and limbs, the best remedies are said to be Salicylate of Soda and Salol.

Salicylate of Soda is supplied in Tabloids, containing three and five grains each, the dose being fifteen grains.

MORPHINE.

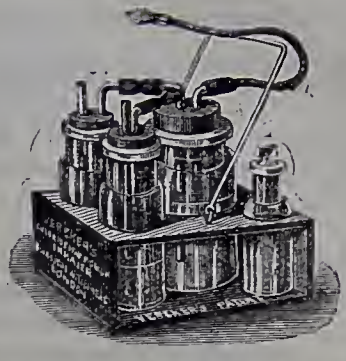
Morphine Tabloids for hypodermic use are supplied in doses of a third and half a grain, and the demand for them has been very great.

FLORIDA WATER AND PINOL PERFUME.

For the headache, Florida Water and Pinol Perfume, applied on lint, or on a handkerchief, are the favourites.

CHLORATE OF POTASH.

DIRECTIONS.—In throat complications, a Tabloid of Chlorate of Potassium or Chlorate of Potassium and Borax may be slowly dissolved on the tongue as a stimulating expectorant.



VEREKER'S INHALER.

For the accompanying bronchitis, Chloride of Ammonium Tabloids are frequently employed, but better results have been reported from the use of the Improved Vereker Chloride of Ammonium Inhaler, especially when used in conjuction with Pinol and Pure Terebene.

PINOL EXTRACT.

Baths of Pinol Extract are very stimulating to the skin, and at the same time assist in removing congestion and muscular pains as well as the catarrhal symptoms.

PINOL.

Pinol is useful in allaying cough, and it may be taken dropped on sugar.

It is also a powerful anti-septic and germ destroyer, and has been found an effectual preventive against influenza when sprayed about the rooms or inhaled from the moustache, or from the Pinol-Eucalyptia Dry Inhaler, which can be held in the mouth like a



cigar. This Inhaler has been found to cut short attacks of influenza, ulcerated throat, &c.

To counteract the debility, and during convalescence, Beef and Iron Wine (Burroughs), which now contains quinine, is largely employed, the dose being a wineglassful or more with water three or four times a day. Fellows' Syrup of Hypophosphites is said to be the best tonic, and is largely employed as a preventive. The Kepler Extract of Malt added to milk increases its power of assimilation, and forms an admirable food in fever and convalescence.

As disinfectants for the sick-room, and for use in the form of a spray, or with a bronchitis kettle, Eucalyptia, Pure Terebene and Pinol are frequently prescribed, either alone or in combination.

BURROUGHS, WELLCOME & CO., Snow Hill Buildings, LONDON, E.C.,

Will be happy to supply Price Lists to Chemists free on request.

SULPHONAL-BAYER.

LONDON.] JANUARY 25. [1890.

A SAFE SOPORIFIC.

SULPHONAL is an oxidation product of the union of ethylmercaptan with acetone, and appears to possess properties that will specially commend it to the medical profession.

It is soluble in from 1 in 20 parts of boiling water, and 1 in 400 parts of cold. This sparing solubility of Sulphonal is one of the chief difficulties which have to be dealt with in dispensing the remedy. It is placed on the market in the form of small white crystals, which powder easily, but the resulting powder mixes badly with water. Were there not this objection, the best form of dispensing Sulphonal would be as powder, for, the dose being comparatively large, *pills are out of the question.* In ordinary mixtures, the powder rises to the surface of the liquid as soon as agitation ceases. This fact conclusively proves that "Tabloids" of compressed Sulphonal must be about the only eligible form for administration, obviating as they do every inconvenience and affording every possible convenience. Consequently we have prepared the drug in this form.



The BRITISH MEDICAL JOURNAL (April 27, 1889) says:—

"The most recently introduced hypnotic, Sulphonal, is now finding many supporters, and it seems, from the accounts already published, to possess many of the qualities in which the drugs of the same class, paraldehyde, urethane, hypnone, methylal, and amylene hydrate are deficient.

"Most observers who have tried Sulphonal speak well of it. In most cases it produces, after a period varying in length, a tranquil natural sleep, from which the patient awakes refreshed. The cases in which it appears to be of most benefit are those in which insomnia is due to purely nervous conditions, whether functional or organic. Thus Kast found it efficient in 'neurotics,' and in the insomnia of old age, and in organic brain disease. Most observers confirm Kast in these statements."

Dr. Lauder Brunton, in the Croonian Lectures, 1889, spoke highly of Sulphonal as a hypnotic. "It is one of the most effective of all the recently introduced hypnotics. It does not compel sleep like morphine, but induces it in a pleasant manner, and has few disagreeable after-effects and no danger. Paraldehyde imparts an unpleasant odour to the breath for a long time after taking it. Sulphonal does not depress the heart's action like chloral."

Professor Leach considers "the tastelessness of Sulphonal has rendered it a favourite remedy in simple insomnia, and comparative small doses, such as 10 to 15 grains (two or three Tabloids), sometimes suffice to cause the desired effect."

Dr. Grainger Stewart (Professor of Practice of Physic and Clinical Medicine, University of Edinburgh), writing to the *Medical Press*, speaks of the successful results he has had in his practice from the use of Sulphonal-Bayer as a hypnotic. He gave it in doses of 15 to 30 grains (three to six Tabloids) at five in the afternoon, and found that it produced satisfactory sleep at the ordinary time. He had not seen any disadvantageous results following its administration.

SULPHONAL TABLOIDS IN INFLUENZA. — Sulphonal, according to the experience of high medical authorities, has proved very efficacious in resisting the symptoms of Influenza which result in derangement of the nervous system, sleeplessness and also nervous discomfort and headache.

Sulphonal, given in very small portions several times during the day, has proved very beneficial. The advisability of administering small doses has been experienced by Physicians on themselves during the present Influenza epidemic. As a remedy which has proved of great benefit in quieting the nervous system and shortening the great torpidity during convalescence, it appears especially useful, sleeplessless during this illness being a characteristic symptom, whilst sound sleep is of the greatest advantage to the patient.

In contrast to all other remedies which directly force sleep and which in time prove injurious (e.g. Morphia), Sulphonal is the only remedy which induces a natural sleep, leaving no injurious effects.

For these reasons, but especially in order to shorten the troublesome period of convalescence and to prevent any fatal consequences (inflammation of the lungs), the use of Sulphonal in small doses is recommended.

The dose is one or two Tabloids (5 or 10 grains) in a warm fluid, three times a day.

As has been stated, the insolubility of Sulphonal in cold water is its great drawback, and this being observed the Tabloids were introduced, each containing 5 grains of Sulphonal in an impalpable powder. When the Tabloids are crushed in any warm fluid they completely dissolve, and may be given to the patient without exciting suspicion.

Sulphonal (Bayer) supplied to the trade at 1s. 6*d. per oz. (subject to the fluctuation of the market).*

Sulphonal Tabloids (5 *gr.*)—*the most eligible form of the drug—are supplied in bottles containing* 25 *and* 100 *at* 12*s. and* 36*s. per dozen (subject to the fluctuation of the market).*

BURROUGHS, WELLCOME & CO., SNOW HILL BUILDINGS, LONDON, E.C.

Above Prices subject to usual discount.

Digestive Ferments.

LONDON] JANUARY 25TH. [1890.

ZYMINE (Extractum Pancreatis) FAIRCHILD.

This is the first pure, active pancreatic ferment ever introduced to the profession in dry powder. It is active on albumens and starch; but, as pepsin will not digest proteids without an acid, neither will Zymine except in the presence of an alkali. In preparing beef-tea, milk, gruels, &c., for invalids, Zymine affords an agent that for activity and simplicity of usage is all that could be wished. It yields pleasant products and practically entails no extra trouble. By using it in making beef-tea, the nutritious part of the beef that has so often been rejected in the coagulated residue that was thrown away, is saved. Thirty grains of Zymine with a scruple of soda added to 4 oz. of meat, will make a delicious and nutritious beef-tea—a beef-tea not open to the objection that it is a stimulant merely, and not nutritious; moreover, the nutriment is almost certain to be absorbed, as it is soluble and dialysable. Again, a little Zymine given with gruels will tend to ensure their absorption by the stomach.



ZYMINE (FAIRCHILD) supplied to the Trade in ½-oz. and 1-oz. bottles at 20/- and 60/- per doz. Retail 2/- and 6/- each.

ZYMINE TABLOIDS.

Where the physician desires to carry on or promote the digestive process in the duodenum, there are ZYMINE and COMPOUND ZYMINE TABLOIDS. No evidence whatever is forthcoming that a pancreatic powder or liquid will exert any action in the intestine, while the coating (comparatively insoluble in the gastric juice) on the ZYMINE TABLOIDS affords an entirely different prospect. The great activity of ZYMINE seems to endow it with special usefulness where the intestinal and pancreatic ferment principles are weak or perverted. Of course it is in no sense claimed that Zymine is curative, it is only claimed that it is decidedly active in digesting foods in alkaline media, *e.g.*, as in the intestinal secretions. The ZYMINE TABLOIDS contain 3 grs. each, and the dose is from one to three Tabloids an hour or so after meals.



ZYMINE TABLOIDS supplied to the Trade in bottles of 25 and 100, at 18/- and 48/- per doz. Retail 2/- and 5/- each.

ZYMINE COMP. TABLOIDS supplied to the Medical Profession in bottles of 25 and 100, at 18/- and 48/- per doz. Retail 2/- and 5/- each.

NOTE.—The Fairchild Digestive ferments are especially adapted for predigesting foods for invalids.

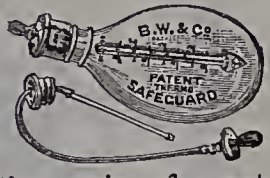
"HUMANISED MILK."

The Zymine Peptonising Powder (Fairchild) yields a food for infants which is pronounced by the highest medical authorities "the safest and best physiological imitation of mothers' milk." By means of this digestive powder, with the very simple and practical process originated and perfected by us, the caseine of cows' milk is modified and predigested, and other essential components so applied as to yield a product almost identical in physiological, chemical, and physical properties with human milk.



So remarkable a resemblance to woman's milk is yielded when cows' milk is digested by the Fairchild Zymine Peptonising Powder, that it suggested to Professor Leeds the term "Humanised Milk," as aptly descriptive of the product.

Artificial feeding is far from being considered as *necessarily* prejudicial to health. The conviction is more and more frequently finding utterance from physicians specially acquainted with this subject, that feeding by means of a good bottle, such as the B. W. & Co. Patent Thermo-Safeguard, is to be preferred to the service of a wet nurse; and thus if cows' milk can be made to agree with an infant, it is to be preferred to mothers' milk *in cases where this is not of normal quality and quantity.*



It may be logically assumed that the average composition of human milk is the most practical and scientific basis for the fabrication of a milk food for the average infant, permitting the bottle-fed infant, like the nursing infant, to take food in such quantities and at such intervals as best conduces to its health.

ZYMINE PEPTONISING POWDERS (FAIRCHILD), supplied to the Trade in boxes containing 1 doz. tubes, at 18/- per dozen boxes. Retail 2/- each.

ZYMINISED (PEPTONISED) SUPPOSITORIES (meat or milk) supplied to the Trade in boxes of 1 doz., at 22/- per doz. Retail, 2/6 each.

The B. W. & Co. THERMO-SAFEGUARD FEEDING BOTTLE—with thermometer embedded in the glass—supplied to the Trade at list prices, viz., 9/-, 12/-, and 22/- per doz.

The *British Medical Journal* says:—"It has a great deal to commend it."

The *Edinburgh Medical Journal* says:—"It is the best of all feeding-bottles, and ought to be universally used."

NOTE.—Hospital reports show a decrease of 40 per cent. in infant mortality through the use of these ferments.

The Zyminised (Peptonised) Suppositories (meat or milk) have been found of the greatest service where the digestive functions have been entirely suspended, and have supplied the necessary nutriment for days and even weeks until the powers of digestion were restored.

BURROUGHS, WELLCOME & CO., Snow Hill Buildings, LONDON, E.C.

ABOVE PRICES SUBJECT TO USUAL DISCOUNT.

"Tabloids" of Compressed Drugs.







REDUCED PRICES.

Bottles of 100, 7/6 per doz. 9d. each Retail.

Bottles of 200, 14/ per doz. 1/6 each Retail.

Pure.

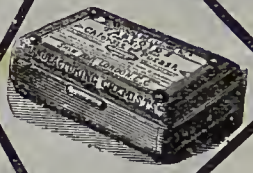
Portable.











Supplied to the Trade in beautifully graven white metal boxes, with blue silk labels, at 8/ and 16/ per doz. Retail prices, 1/ and 2/ per box.

Profitable.



Perfect.









This elegant leatherette bent-glass Show Case is supplied gratis with orders for 3 doz. Assorted Bottles of Tabloids.

BURROUGHS, WELLCOME & CO., Snow Hill Buildings, LONDON, E.C.

ABOVE PRICES SUBJECT TO USUAL DISCOUNT.

The Original and only Genuine "Tabloids"

& "Tablets"
(TRADE MARKS)

Of Compressed Drugs

Afford many advantages over the old-fashioned methods of Administration.

1. They are the most portable form of drug.
2. They are more easily swallowed than round pills.
3. They are, in nearly all cases, free from sugar, gum and paste, which in Lozenges interfere with the local activity of the drug.
4. The "Tabloids" when used for the throat dissolve slowly in the mouth, bringing a concentrated solution in contact with the diseased surfaces, and for a much longer time than with a gargle or ordinary Lozenge.
5. Drugs which are intended for internal use are compressed lightly and dissolve readily. Quinine Tabloids are, for instance, much more soluble than hand-made pills.

"TABLOIDS" prepared by B. W. & CO.

Aconite Tinct., 1 min.
Aloin, 1/10 gr.
Ammon. Bromide, 5 and 10 gr.
Ammon. Chloride, 3, 5 and 10 gr.
Ammon. Chloride with Borax.
Anti-Constipation (Aloin, 1/5 gr. Strych. 1/60 gr. Belladon. Ex. 1/8 gr. Ipecac. 1/16 gr.)
Antifebrin, 2 gr.
Antimony Tartrate, 1/50 gr.
Antipyrin, 5 gr.
Apomorphine Mur., 1/50 gr.
Arsenious Acid, 1/100 and 1/50 gr.
Atropine Sulph., 1/100 gr.
Belladonna Tinct., 1 min.
Bismuth Sub-nit., 5 and 10 gr.
Blue Pill.
Borax, 5 gr.
Caffeine Citrate, 1 gr.
Calcium Sulphide, 1/10 gr.
Calomel, 1/10 and 1 gr.
Capsicum Tinct., 1 min.
Cascara Sagrada Ext., 2 gr.
Cascara Sagrada Ext. (Dry), 1 gr.
Euonymin, 1/2 gr.
Nux Vomica Ext. 1/16 gr.
Cathartic Comp., U. S. P.
Charcoal, 5 gr.
Chloral Hydrate, 5 and 10 gr.
Cocaine, Potash and Borax (Voice)
Creta Aromat. cum Opio Pulv., 5 gr.
Digitalis Tinct., 1 min.
Digitalin, 1/100 gr.
Dover Powder, 1/4 and 5 gr.
Euonymin Resin, 1/8 gr.
Hydrarg. cum Creta (Grey Powder), 1/3 gr.
Hydrarg. Iod. Rub., 1/20 gr.
Hydrarg. Iod. Vir., 1/8 gr.
Hydrarg. Perchlor., 1/100 gr.
Hydrarg. Subchlor. (Calomel), 1/10 and 1 gr.
Hyoscyamus Tinct., 1 min.
Ipecac. and Opium (Dover Powder), 1/4 and 5 gr.
Ipecac. Powder, 1/10 and 5 gr.
Iron and Quinine Cit., 3 gr.
Laxative Vegetable.
Lithia Carbonate, 2 gr.
Manganese Dioxide, 2 gr.
Morphine Sulph., 1/20 and 1/8 gr.
Nitroglycerine.
Nux Vomica Tinct., 1 min.
Opium Tinct. (Laudanum), 2 min.
Papain, 2 gr.
Pepsin, Pure (Fairchild).
Pepsin Saccharated, 5 gr.
Peptonic.
Phenacetin, 5 gr.
Pilocarpin Mur., 1/20 gr.
Podophyllin Resin, 1/4 gr.
Potash Bicarb., 5 gr.
Potassium Bromide, 5 and 10 gr.
Potash Chlorate, 5 gr.
Potash Chlorate with Borax.
Potash Nit. (*Sal Prunella*), 5 gr.
Potash Permanganate, 1 and 2 gr.
Potassium Iodide, 5 gr.
Quinine, 1/10, 1/2, 1, 2, 3 and 5 gr.
Quinine Sulphate, 1 gr.
Iron Hypophosphite, 2 gr.
Acid Arsenious.
Strychnine Sulphate, aa 1/50 gr.
Saccharin, 1/100 gr.
Rhubarb, 3 gr.
Rhubarb Comp. (Pil.), 3 gr.
Rhubarb Comp. Pulv. (Gregory Powder), 5 gr.
Rhubarb and Soda, 5 gr.
Saccharin, ½ gr.
Salicin, 5 gr.
Salol, 5 gr.
Santonin, ½ gr.
Soda Bicarbonate, 5 gr.
Soda-Mint (Soda, Ammon. Carb. & Mint)
Soda Salicylate, 3 and 5 gr.
Strophanthus Tinct., 2 min.
Sulphonal, 5 gr.
Sulphur Comp. (Dr. Garrod's Formula)
Tannin, 2½ gr.
Test Tabloids (Fehling's).
Thirst.
Tinct. Camph. Co. (Paregoric), 2 min.
Tonic Comp. (Iron Pyrophosph., 2 gr. Quinine Sulph., 1 gr. Strychnine Sulph., 1/100 gr.)
Trinitrine (*Nitroglycerine*), 1/100 and 1/50.
Trinitrine and Amyl Nitrite.
Trinitrine Comp. (Trinitrine, 1/100 gr. Nitrite of Amyl ½ gr. Capsicum, 1/50 gr. Menthol, 1/50 gr.)
Urethane, 5 gr.
Voice (Potash, Borax, and Cocaine).
Warburg Tincture, 30 mins. in each.
Zinc Sulphate, 1 gr.
Zinc Sulpho-carbolate, 2 gr.
Zymine Tabloids.
Zymine Comp. Tabloids.

These pure and palatable Tabloids of Compressed Drugs are supplied in convenient packages for dispensing, and at moderate prices.

BURROUGHS, WELLCOME & CO., Snow Hill Buildings, LONDON, E.C.

Will be happy to supply complete Lists to Chemists on request.

"VASELINE," in 1d., 2d., & 3d. TINS.

All nicely wrapped, and stamped with the name of

THE CHESEBROUGH MANUFACTURING CO., the Proprietors and Sole Manufacturers.

NONE OTHER GENUINE.

1d. Tins, One Gross in Wood Box	at 8/- per Gross net.	}	*Of all Wholesale Houses, or Sample Boxes Carriage paid on receipt of Postal Order.*
2d. Tins, One ,, ,, ...	,, 16/- ,,		
3d. Tins, Half ,, ,, ...	,, 24/- ,,		

CAUTION.—The fancy word "VASELINE" is the Registered Mark, and is the exclusive property of this Company, and indicates *THEIR* make and putting up of *THEIR* preparations of Petroleum Jelly.

SHOW CARDS AND CIRCULARS ON APPLICATION.

42 Holborn Viaduct, London, E.C.

B. W. & CO.'S Hypodermic Tabloid Cases.

Equipped with a B. W. & Co. Hypodermic Pocket Case, the physician has a more complete armamentarium for procedure in emergencies than is elsewhere procurable.

15s.



B. W. & Co.'s No. 7 Hypodermic Case, filled and fitted complete, 15s.

This is the most complete and convenient Hypodermic Case ever introduced, and has been adopted by the leading physicians throughout the world.

Used on the principal steamships under requirement of the new medical regulations of Board of Trade.

HYPODERMIC TABLOIDS.

PREPARED BY BURROUGHS, WELLCOME & CO.

The Lancet reports that—"*they are readily soluble and not at all irritating.*" They present the advantages that the dose is always accurate, the active principle unchangeable, and that they are compact and perfectly soluble.



Tube of Hypodermic Tabloids.

LIST.

Aconitin	1-260 gr.	Hydrarg. Perchlor. ...	1-60 and 1-30 gr.
Aloin	½ gr.	Hyoscyamin	1-80 and 1-10 gr.
Apomorphine ...	1-15 and 1-10 gr.	Hyoscine...	1-200 and 1-75 gr.
Atropin Sulph.	1-150, 1-100, and 1-60 gr.	Morphine Bi-Meconate,	1-8, 1-6, 1-4, and 1-3 gr.
Caffein Sodio-Salicylate ...	1-2 gr.		
Codein Phosphate	1-4 gr.	Morphine Hydrochlorate ...	1-4 gr.
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THE CHEMIST AND DRUGGIST

ESTABLISHED 1859.

PRINCIPAL OFFICE, 42 CANNON STREET, LONDON, E.C.

BRANCH OFFICES:

MELBOURNE, SYDNEY, AND NEW YORK.

Published every Saturday.

Subscription 10s. per year, payable in advance; dating from the commencement of any month.

Supplied only to persons connected with the Trade.

Post free to every country in the world. Single copies 4*d.* each.

Cheques or Postal Orders should be payable to EDWARD HALSE, and crossed MARTIN & Co.

Supplied regularly to every member of the following Societies, who have adopted THE CHEMIST AND DRUGGIST as their official organ:—

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POST-CARD COMPETITIONS, 1890.—No. 1.

REPLIES must be sent in on post-cards only; subscribers, their families, or their employés alone are eligible; and answers for competition must be in our possession by the last day of the month. For January we offer the usual guinea for the best

OUTLINE OF AN HOUR'S LECTURE

such as it might be useful for a chemist and druggist to deliver to a school, literary institute, or miscellaneous audience. The post-card should indicate the title of the lecture, and present a skeleton of the treatment, with references to illustrative experiments or exhibits if it should be thought fit to introduce these. We do not lay down any limits as to the topics to be chosen, but it is expected that all the outlines of lectures sent in will be on a subject bearing some relation to the occupation of the pharmacist.

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NEW OFFICE AT SYDNEY, N.S.W.—Our Australian staff have found it necessary to take an office at Sydney, N.S.W. This is situated at 13 Queen's Chambers, Barrack Street.



THE reading cases which we offer to subscribers are now used by a very large number of chemists, and are found very convenient. They keep together thirteen numbers in very tidy form, always ready for reference. By having two cases in hand the numbers of a complete volume are always available until the time comes for binding. We sell these cases at the office for 1*s.*, or by parcels post 1*s.* 3*d.*, or two for 2*s.* 3*d.* We cannot forward them to any house for enclosure, nor by any of the carriers, as in the latter case we have to pay for booking.

ADVERTISEMENTS of situations vacant and wanted, businesses for disposal, &c., will be received by us up till the first post on Friday morning.

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WE have pleasure in announcing to Continental subscribers that henceforth, by arrangement with the post offices of the various countries, subscriptions to THE CHEMIST AND DRUGGIST can be paid at any post office in Austria-Hungary, Belgium, Denmark, Germany, Holland, Norway, Russia, and Sweden at our rates, namely 10*s.* per annum including postal delivery to subscribers in any of those countries. Subscriptions may date from the first issue of any month.

Metropolitan Reports.

CHEMISTS' ASSISTANTS' ASSOCIATION.—At the meeting of this association held on January 23, a discussion "On the advisability of an University Degree for Pharmacists" was opened by F. Davis, B. Sc.

THEFT FROM A CHEMIST.—At the London Sessions on Tuesday, January 21, John Collins, stoker, was charged with stealing a watch and chain valued at 26*l.* from Mr. MacGeorge, chemist, Essex Road, N. Mr. MacGeorge said that on the evening of December 29 three men entered his shop, and one of them said he had a sprained foot. While the prosecutor was stooping to look at it one of the men snatched his watch and chain from him, and all three ran off. Witness pursued and caught one of them, but the others returned and rescued him and ran off again. Collins then came in front of the prosecutor and tried to stop him, and the prosecutor seized him. The other men came back and assaulted the prosecutor, but he succeeded in holding the prisoner until a constable arrived, when the others made off. The prisoner, who had been convicted several times already, and had been twice in penal servitude, was sentenced to seven years' penal servitude.

WILLOW-WIELDERS DINE.—The members of Messrs. S. Maw, Son & Thompson's cricket club had their tenth annual dinner at the Champion Hotel on January 14, the president of the club (Mr. J. Banks) in the chair. The vice-president (Mr. J. Holdsworth), in toasting "The Firm," referred to the high position the firm occupied in the City, and the kindness that each member displayed to the employés. He expressed great regret at the absence of Mr. C. T. Maw, with whose name the toast was coupled. The toast having been drunk with marked enthusiasm, the chairman came next to the toast of the evening, viz., that of "The Cricket Club." In reply to the toast, the secretary (Mr. T. Masters) gave a very gratifying account of the position of the club. Seventeen matches, he said, had been played, and of these seven were won, five lost, and five drawn. The prize for the best batting average fell to the lot of a new member—Mr. Buxton—whose average for the year was the good one of 13 1-5. In bowling, Mr. Pearce was best with an average of 6 34-35. The challenge cup offered by Mr. Banks for all-round excellence had been won by Mr. Robson. The prizes were then distributed, and afterwards other toasts were given, and, with an excellent programme of music, a most pleasant evening was spent.

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor will much oblige.

BIRMINGHAM.

INFLUENZA has made the local pharmacists very busy, many remarking that they had not had so much to do since they had been in business.

APOTHECARIES' ASSISTANTS' EXAMINATION.—It is reported that this examination is to become partly a written one—a very desirable innovation.

MR. ALDRIDGE, who formerly had several businesses in and near to Summer Lane, Birmingham, has allowed his last to pass under the hammer during the past week.

A NEIGHBOURING village doctor went away for a time and left his place in charge of a *locum tenens*, whom to the first person applying for the doctor's aid after his departure the butler called the "local demon."

PHARMACY AND THE FAIR SEX.—A young lady (fully trained) advertises in the local papers for practice in the art of Dispensing.—Two ladies presented themselves for examination at the Apothecaries' Hall, London, on Thursday last, for the Assistantship Qualification. One who bears the name of our only General was successful.

IODATE OF POTASSIUM AND INFLUENZA.—Messrs. Southall Bros. & Barclay have intimated to their customers that since offering iodate of potassium on their list, they have come to the conclusion that they do not possess sufficient information to justify them in packing it for issue to the public with safety. Under these circumstances they can only supply it in bulk, without responsibility. They had previously offered it by circular as "Iodate Crystals," a "preparation now in extensive demand as a cure for influenza."

BOLTON.

EXTRAORDINARY CHARGE AGAINST A DRUGGIST.—An extraordinary charge of impropriety against a chemist and druggist, who has been in business in Bolton for nearly a quarter of a century, was investigated by the borough magistrates on January 16. The defendant was Mr. George Shellcross, who has a large shop in Folds Road, Bolton, and the prosecutrix was a married woman named Wells. The statement for the prosecution, which was conducted by Mr. Fielding, was that prosecutrix went to defendant's shop on Sunday night for medicine for her father; that defendant, after taking her medicine bottle, went to the front of the counter, and was guilty of improper conduct; that prosecutrix indignantly resented this, demanded her bottle back, and ran out of the shop. Mr. Charles H. Holden, for the defence, held that this was merely a planned endeavour to extort money. His client, he said, had to go round the counter to get the mixture the woman wanted. The woman Wells was in the way and he simply said, "Allow me." The woman seemed to misunderstand this, became excited, and left the shop. In support of this statement defendant's daughter was called, and said she had the woman in view all the time she was in the shop, and she swore there was no impropriety. The magistrates said they were very sorry, but they saw no option but to send the case to the Quarter Sessions. Defendant was then committed for trial, the affair causing considerable interest in the town.

CONGLETON.

DANGEROUS CHEWING-GUM.—At the adjourned inquest touching the death of a boy named Harry L. Charlesworth, whose death was supposed to have been caused through eating "chewing-gum," further evidence was given in addition to that which we reported last week. Mrs. Catherine Gee, who kept the shop where the boy bought the chewing-gum, deposed that there was a printed paper with each box of the gum purporting to be a guarantee to the manufacturers by "Professor Doremus," certifying that the "chewing-gum" contained nothing injurious. It was also stated in the "guarantee" that the preparation was not only harmless but beneficial and good for digestive purposes, and especially useful in cases of dyspepsia. Mr. Davidson, surgeon, who attended the deceased and afterwards made the post-mortem examination, said that death was caused by some irritant poison, and from the symptoms presented during life he should say that carbolic acid or some essence was present. The sample of chewing-gum produced contained essence of peppermint, which was of itself very dangerous if taken in any quantity. He had known cases where serious results had ensued from eating large quantities of peppermint lozenges. By the Coroner: He should say that seven or eight drops of oil of peppermint would prove fatal to a child five years of age. He believed that a halfpenny-worth of chewing-gum similar to that produced would, if swallowed, prove fatal. The Coroner said it was pretty evident the child had died from the effects of eating chewing-gum. Through the courtesy of Chief-constable Hall, he had been supplied with a copy of THE CHEMIST AND DRUGGIST for Sept. 14 last, in which it was reported that at a meeting of the Bath Sanitary Authority a letter was read from Mr. W. Gatehouse, public analyst, pointing out the disastrous effects which might ensue from children eating a material to be purchased in "sweet shops" under the name of "chewing-gum," which was made up in small packets, variously coloured, and usually labelled, "for chewing only." He read this for the benefit of the jury. Mr. S. Catterill, pharmaceutical chemist, one of the jurymen, said he knew of a case where a pony had to be killed through eating

peppermint lozenges. The jury, on the Coroner's suggestion, decided to adjourn the inquest for the contents of the stomach and a sample of the gum to be submitted to the county analyst.

DONCASTER.

Inaccurate Dispensing.—On Saturday, Jannary 18, Mr. George Alfred Pickering, chemist's assistant, Mexborough, was charged before the Doncaster magistrates with having on December 11 last sold a compounded drug not composed of the ingredients demanded by the purchaser. The proceedings were instituted by Superintendent Blake, who said he called at the shop of Mary Pepper, trading as a chemist, High Street, Mexborough, where the defendant was engaged, and presented a prescription for ½ oz. of iodide of potassium, dissolved in 12 oz. of chloroform water. When he told the defendant he intended sending the mixture to the public analyst at Sheffield, he said he had made a mistake and wanted to correct it. The component part that was wrong was 219 grains of bicarbonate of potassium, and this the analyst certified. Hard water also was used instead of distilled. The defendant said he was sorry the discrepancy had occurred. He had several customers in the shop at the time, and the superintendent somewhat disconcerted his attention by laughing and talking. It was the rule for prescriptions like that to be left to be made up. Lord Auckland said a substantial penalty must be imposed, for the public must be protected against that sort of thing. In the place of a very expensive drug the superintendent had been supplied with a very cheap one. The defendant was fined 5*l*., including costs.

HUDDERSFIELD.

Wrongful Dispensing.—At the County Police Court on January 21, Mr. B. Lockwood, chemist and druggist, Milnsbridge, was charged with selling to Superintendent Pickard an article which did not contain ingredients demanded by him. On December 13 the superintendent presented a prescription at the defendant's shop. Defendant made it up and charged 1*s*. for it. He was told it was for analysis, and offered a part, but he declined it. The medicine was snbmitted to the county analyst, who certified that it containcd 120 gr. of citrate of iron and quinine, which should have been dissolved in chloroform water, but ordinary water was used. It was contended for the defence that the offence was only of a technical description, as chloroform water was seldom used on account of its volatile character, and the pecuniary advantage to the defendant was only about 100th part of 1*d*. A fine of 20*s*. and expenses was imposed.

LEAMINGTON.

Stepping Downwards.—At the police court on January 17 Henry Mann, alias "The Baron," who formerly occupied a respectable position in the town as a chemist, was charged with a nnmber of thefts from various shops in the town, including pork chops, stockings, gloves, and other articles. Prisoner, who pleaded guilty, was sent to prison for six weeks with hard labour.

LIVERPOOL.

More Branch Shops.—Mr. J. H. Allan, pharmaceutical chemist, of Breck Road, has now two branch shops. All seem to be in a flourishing condition.

We understand that Messrs. Evans, Sons & Co. have appointed Mr. Wm. Brinson as their representative for this city.

New Councillor.—Mr. Hugh Dutton, of Chester Street, Birkenhead, has been elected a member of Council of the Liverpool Chemists' Association in place of Mr. R. Sumner, who has resigned. Mr. Dutton's father was many years a member, and at one time not less than one-fourth of the council were chemists on the Cheshire side of the Mersey.

The Liverpool School of Pharmacy.—Mr. Ward's new premises at 24 Newington were formally opened on Thursday, January 16. Dr. Symes, President of the Liverpool Chemists' Association, gave an opening address; and Mr. Conroy, vice-president of the association, was expected to take part in the proceedings, but he was suffering from a severe cold and was unable to attend. The lecture-room was well filled with past and present students. In the course of his remarks Dr. Symes said he came as a fellow-student, somewhat further on the road, but with still much to learn. What he desired was to say something to make his hearers more closely attached to their calling. "The Liverpool Chemists' Association," he said, "had for many years a school of pharmacy. It was never, in my recollection, a very successful affair. The students usually numbered about a dozen to twenty, mostly the smaller number. There were some good chemical lectures for very moderate fees, and botany and materia medica were taught for reasonable sums; but the various efforts made to sustain it had practically failed, and it had fallen to a very low ebb when Mr. Ward started the Liverpool School of Pharmacy. The success of the undertaking was at first by no means assured, and it required ability, expenditure of capital, courage, patience, and perseverance to bring about the present result. The council of the association relinquished its school in favour of this one, and an arrangement was entered into whereby, although not having any pecuniary interest in it as a property, it exercised a certain control over its conduct. The syllabus is submitted for revision and approval, and members of the council can at any reasonable time visit the premises and satisfy themselves that it is complied with, and that sound teaching is the principle which governs all instruction given. So far the arrangement has worked satisfactorily, and if carried out both in spirit and letter it may form the basis on which may be built a solid educational structure to meet the wants of this city and neighbourhood, and may be a model on which other provincial schools of pharmacy may be founded. I have not yet given up the hope that these will some day exist in all important centres." After complimenting Mr. Ward on his past record, Dr. Symes said much of the success of students depended on their previous training. The danger to apprentices after passing the Preliminary examination was to lose the habit of study, This habit once acquired is easy if practised, but laborious and irksome if neglected. Having lost the habit, the youth trusts to information he may gain in the pharmacy, and to a few months' tuition at a future date, to fit him for the ordeal he dreads. Men go to schools quite unprepared to digest and assimilate the mental food that is prepared for them, with minds often almost incapable of comprehending the important principles on which this instruction must proceed, and it is these men who constitute the majority and swell the percentage of unsuccessful candidates at the examinations. He would like to see more junior students, youths who have served part of their apprenticeship, taking one or two subjects each session to help and direct their private study previous to coming for their final instruction. He expressed approval of the principle of the compulsory curriculum as originally proposed, but thought the scheme as now planned would need revision. But the relations between pharmaceutical education and pharmaceutical examination did concern them. Professor Attfield holds that until examiners know more of the lines on which students have been taught, or teachers know more of the lines on which they are to be examined, notwithstanding solid training, passing the examinations will be very much a matter of chance. This, Dr. Symes said, "looks like sound reasoning, especially in so wide a subject as chemistry. The scope of the examinations is defined by the Council and examiners, and we are bound to assume that it is just and right; in fact, he did not remember hearing a complaint that it is otherwise. But the examiners have a difficult task to perform in varying the questions so as not to make the examination a mere matter of memory (one student communicating to another the questions asked), and yet to keep within the lines as at present defined. A more complete syllabus would, no doubt, help both teachers and examiners, and when this is formulated it ought to be published for comment and criticism before it is finally adopted, as by such means it would be rendered far more perfect and acceptable than it otherwise would be. The examiners, we are told, would be assisted in their judgment as to the fitness of candidates if they were empowered to demand certificates of attendance at *bonâ-fide*

schools of pharmacy." Assuming this to be the case, although they cannot at present demand, he knew of nothing to prevent them from receiving such certificates if voluntarily offered, and they would soon learn to attach such value to them as they really deserved. He understood that candidates were sometimes asked where they had studied, and that all did not care to give a definite reply. He hoped that the occasion might never arise that a candidate would be ashamed to own that he had been educated at the Liverpool School of Pharmacy. He urged them not to stop at the Minor. If, however, they studied further they might fairly ask what was to be their reward. Well, he trusted they had not chosen pharmacy as a means to a rapid fortune, but rather as a calling in which they could make a reasonable livelihood, and be occupied in a manner agreeable to their tendencies and wishes. If such were the case there were, he thought, no reasons why their hopes might not be realised. "It is a business which requires a less capital to start with than many others, and one in which there is always food for thought, notwithstanding the miserable competition to which it is subject. The social position is certainly not great, but it is tending upwards." Dr. Symes concluded his address by wishing success to his hearers and a long and useful existence to the school in its new domicile. After some remarks from Messrs. Harold Wyatt, junr. (President of the Pharmaceutical Students' Association), Cane, Newton, and Kerr, a vote of thanks was passed to Dr. Symes for his address. Mr. Ward commented on some of Dr. Symes's remarks, endorsing his advocacy of a new syllabus. He also spoke strongly in favour of having the examination as far as possible in writing, and the first part at various centres. If this were done everyone would get an equal examination, whereas at present much depends upon the examiner, and two men having different examiners in the same subject are frequently unequally dealt with.

MANCHESTER.

A Combative Dentist.—At the City Police Court on Wednesday, January 22, Mr. Joseph Williams, dentist, formerly of Oxford Street, was charged with unlawfully using threatening language to Mr. Edward Moross, medical electrician, with intent to instigate him to fight a duel. After hearing evidence the defendant was bound over in his own recognisances of 50*l.* to keep the peace for six months, and ordered to pay the costs, including two guineas extra.

A New Photographic Camera.—At a meeting of the Manchester Amateur Photographic Society on Tuesday evening last, Mr. McKellen exhibited a new detective camera and plate magazine. A dozen plates can be stored in the camera, and by moving a small lever each plate is dropped into a receptacle after having been exposed and the next put in position. The movement of the plate is caused by a small spring, and not more than one plate can be displaced at a time. The action is certain, and there is no fear of there being two exposures on the same plate. The whole twelve could be changed in less than a minute. Each plate is put into a thin shield, which is lined with non-actinic paper, thus saving the trouble of backing the plate. The camera when closed is focussed for anything beyond twenty feet, and can be fixed at will to any distance within that. Time exposures can be made by means of a small lever in front, which draws a shutter (inside the camera) across the lens, and thus does away with the cap.

NOTTINGHAM.

The Alleged Adulteration of Saccharine.—At a meeting of the Health Committee of the Nottingham Corporation held on January 17, the town clerk (Mr. S. G. Johnson) reported that he had caused proceedings to be taken against Boot's Pure Drug Company for alleged adulteration of saccharine. The case was discussed at some length, and the town clerk was instructed by the Health Committee to take such further proceedings as might be necessary to bring the matter, if possible, before a higher tribunal, the committee not being satisfied with the decision of the magistrates, who, it will be remembered, had dismissed a summons heard against the defendant company on January 15.

At the Guildhall, Nottingham, on Saturday, January 18, the Town Clerk, acting on the instructions of the Health Committee, applied to the borough magistrates, under the provisions of the Summary Jurisdiction Act, 1879, to state a case for a higher court, on the ground that the decision they had given was erroneous in point of law. Notice of the application had been given to their worships and to the other side. After briefly stating the case on the hearing of the summons, the town clerk said, as he understood, it was not denied that the 75 per cent. of foreign matter had been added, but it was contended that this addition was not deleterious to health. That was no defence whatever in point of law, because if the 75 per cent. was added for the purpose of increasing the bulk, and not for the purpose of making the tabloid portable, that was clearly an offence as to which the magistrates had no discretion, but as to which in point of law they were bound to convict. He admitted that the admixture of some substance with the saccharine, to make it into tabloid form, was necessary, but there should be as much saccharine in the tabloid as it could hold, and the vendor only had the right to add what was absolutely necessary for the purpose of making it portable. It was admitted by the defendants' own witness that there were tabloids made elsewhere which contained only $\frac{1}{2}$ a grain of foreign substance, whilst in this case there was $1\frac{1}{2}$ grain to $\frac{1}{2}$ a grain of saccharine. Whether $\frac{1}{2}$ a grain of saccharine was the dose or not had nothing to do with the case. The vendor was bound to sell pure saccharine as far as possible. In this view he (Town Clerk) was supported by Dr. Cassel. The Health Committee felt bound to press the case as far as possible. It had been proved that an unnecessary amount of foreign substance was added to the saccharine, and the magistrates had no alternative but to convict. The defendants, he contended, had fraudulently increased the bulk of the tabloid, to the prejudice of the purchaser. In reply to the magistrate, the town clerk further said that every bit of substance that was added, beyond that which was necessary to hold the tabloid together and make it portable, was fraudulent.

Mr. Botterill, opposing the application, said the magistrates had settled the question as to whether the bulk had been fraudulently increased or not, and the town clerk, before instituting a prosecution of this kind, should have satisfied himself, not only that there had been an admixture of a foreign substance, but that it was injurious. The summons, in the first case, should not have been brought, and the second application was a waste of public time and public money. After reading the sixth section of the Sale of Food and Drugs Act, he said his clients' strong point was that there was no fraudulent intention whatever in the composition of the tabloids. It was proved, without doubt, that a dose of pure saccharine could not be taken without harm. They were told by an eminent doctor that an admixture of sugar of milk would not be an adulteration. The saccharine was in no way interfered with by the sugar of milk. He maintained there was no fraudulent intention either on the score of health or cost. He therefore opposed the application.

The Town Clerk said he knew nothing about the tabloids until a complaint had been made that they were being supplied in an adulterated state in Nottingham. He inquired into the matter in a most impartial spirit. Tabloids were obtained from seven chemists' shops, and of those seven the tabloids in only this one case had 25 per cent. of saccharine, while the others had 67. When he said Boots' fraudulently increased the bulk he was using the words of the Act of Parliament. The greatest amount of foreign substance to be introduced into the tabloids should be 35 per cent. The question was whether it was necessary to introduce 75 per cent.; he contended it was not. Since it was shown they could put saccharine in a tabloid form, with only a small quantity of foreign substance, everything beyond that was a breach of the Act of Parliament.

The Magistrates' Clerk: That was not proved.

The Town Clerk: This was proved, that it was quite unnecessary to add so much foreign substance as was added.

The Magistrates' Clerk: Oh, no.

The Town Clerk: If that was not proved in evidence it is no use my asking for a case. These tabloids must contain as much saccharine as it is possible to put into them consistent with them being in a portable form. If his friend liked to take a case on that point he would——

Mr. Botterill: I object to a case to the very utmost.

The Town Clerk: I think it was distinctly proved it was not necessary to add so much of foreign substance as 75 per cent.

Mr. Evans believed that in the course of conversation it was stated that a process was about to be adopted by which the introduction of foreign matter would be reduced, but up to a recent period that could not be done.

The Town Clerk: It is no use my proceeding further if these are the facts in the present case. The application was then withdrawn.

OXFORD.

The Electric Light.—The premises of Messrs. Cousins, Thomas & Co., chemists, Magdalen Street, will be lighted with the electric light this week. This will he the only business house in Oxford so lighted.

SELBY.

Inaccurate Dispensing.—At the Petty Sessions last week Frederick Rookledge, chemist, Selby, was charged with selling a certain drug not of the nature, substance, and quality demanded. Mr. J. K. Burton defended. Police-constable Brown said that on December 6 he presented to the defendant at his shop a prescription of iodide of potassium (½ oz.) mixed in aqua chloroform (12 oz.). Defendant supplied him and he paid for it, after which he informed defendant he was purchasing it to he analysed by the public analyst, and asked him if he required it to be divided into three parts, and defendant said he did not. He (witness) then sealed the bottle up and labelled it in defendant's presence. Defendant then said that he had put too much water in, and that the hottle was a 14-oz. one instead of a 12. In cross-examination witness said he knew before he left the shop he had got something he had not ordered, but it was after he had paid for it and told defendant it was for analysis that defendant said it was a 14-oz. bottle. Defendant also said if it had been an ordinary customer he could have rectified it, but then he could not. Superintendent Scott stated that he sent Police-constable Brown with the prescription, and he returned with a 14-oz. bottle filled to the hrim. The bottle was forwarded to Mr. A. H. Allen, of Sheffield, the public analyst, and he produced his certificate, which stated that the iodide of potassium was dissolved in 14 oz. of water instead of 12 as directed, and an unauthorised addition of a small quantity of sulphuric acid had been added. Mr. Burton, in addressing the Bench for the defence, said the drug had been accepted by the purchaser with a knowledge that he had something he had not asked for, as would he proved by the defendant, who told the constahle before he had paid for it that it was made up in too large a bottle, and that too much water had been added, therefore defendant could not have sold it to the prejudice of the purchaser. As to the prcsence of sulphuric acid the defendant could not account for it, as he sold it in the same state as he hought it from the wholesale houses. The defendant (Mr. Rookledge) was called, and said that he had bcen a chcmist seven years and a half, two years and eight months of which he had carried on business in Selby. Police-constable Brown came to his shop with a prescription which he made up and labelled. Hc then got a piecc of paper to wrap it up, and found it was not large enough. He then told the constable the bottle was too large for the prescription. Hc measured the bottle and found it was a 14-oz. one. He told the constable, who said, "You cannot alter it now." The constable then paid for it and took it away. He could not account for sulphuric acid; he sold it as he bought it, and supplied the medical gentlemen in the town. The chloroform water he made himself. In cross-examination the defendant said it was after the constable had paid him that he said it was for analysis. The magistrates retired to consider their decision, and on returning into court said they had given the casc very careful consideration, and in their opinion thc case had heen proved by thc fact that the article contained more chloroform water than directed by the prescription, and by the presence of an addition of sulphuric acid, and imposed a fine of 20*s*., and 21*s*. 9*d*. costs.

SHEFFIELD.

Saved!—The local papers of Tuesday published a paragraph with a delightfully original smack about it to the effect that "it is reportcd that Mr. Smellie, analyst to Messrs. Newton, Chambers & Co., has discovered a means of preventing water acting on lead pipes." Where have the experts been in the meantime? The estimated cost of filter beds stated in your last issue as 2,000*l*. should have been 20,000*l*.

IRELAND.

The Chair of Botany at the municipal schools, Cork, has just been filled by the appointment of a lady professor.

Still Falling.—"Halfpenny seidlitz powders" are the latest "cut" by a newly-started Dublin druggist.

The Value of Poor Law Contracts.—The cost of drugs and medicines supplied to the Bandon Union during the past year is estimated to be close upon 600*l*.

Sixty Thousand Doses of antipyrin (400 oz.) were consumed hy influenzaed Dublinites last week. The *Telegraph* is alarmed about this dosing.

A Musical Pharmacist.—Professor Tichborne, apothecary, Dublin, was the principal musical artiste at a grand concert given last Saturday in aid of the funds of the Adelaide Hospital.

New Company.—Messrs. A. & R. Thwaites & Co., aërated-water manufacturers, Upper Sackville Street, have formed themselves into a limited liability company, with a share capital of 60,000*l*., in 5,000 preference shares of 5*l*. each.

The Wrong Medicine.—Through the accidental mixing of external and internal medicines an old Carrickfergus farmer was last week poisoned by his wife, who was attending him. Bad sight and similar bottles led to the fatality.

When the Cat's Away.—The *Dublin Evening Telegraph*, in a humorously headed "Notice to Adulterators," states that the city food and drugs inspector is *hors de combat* from a had attack of influenza.

Throwing Physic to the Dogs.—A writer signing himself "Dispensary Hack" protests through the Dublin press against the indiscriminate issue of dispensary tickets, hy which a large quantity of valuable medicine is wasted, and the time of compounders occupied to no purpose.

The Toirant Saxon.—Patrick Condon, a Cashel druggist, who some time ago refused to supply his goods to hoycotted individuals, has heen informed hy the police that his Excise licence will be opposed at the forthcoming October sessions.

A Novel Sale.—At Duhlin on Saturday last a local auctioneer knocked down under the hammer 200 barrels of turpentine, which were subsequently divided in lots to suit the purchasers, nine-tenths of whom were chemists and druggists.

Mr. Henry Campbell, a wealthy Belfast merchant, has bequeathed the sum of 200,000*l*. to build a school and to endow a hospital for the free distribution of drugs and medicines to the poor of the Northern Athens. Arrangements are being made to comply with the terms of the will.

Burglary at a Drug Store.—At the Belfast Quarter Sessions last week two men, named O'Neill and Black, were sentenced respectively to five years' and six months' imprisonment for breaking into and stealing a quantity of cash and drugs from the estahlishment of Messrs. Boyd & Co., chemists and druggists, Lisburn.

Sequah is Coming.—At a meeting of the Cork Corporation last week a representative of the Sequah Patent Medicine Company waited upon the council, asking to have a portion of the corn market let at a rent of 20*l*., for the purpose of introducing thc sale of their medicines into the city. The matter was referred to the law and finance committee.

Explosion at a Drug Store.—At Lurgan last week, while two workmen from the chemical company were executing some repairs at Mr. McCavanagh's general store, a

serious gas explosion occurred, wrecking the front of the shop and severely injuring the proprietor and some relatives. The company have offered to make good the damage and compensate the injured.

At a scientific meeting of the Royal Dublin Society held last week, Mr. Richard J. Moss, F.C.S., communicated the results of the recent researches of Raoult and other chemists on the effects produced on the freezing-points of liquids by dissolving various compounds in them. He pointed out that these investigations lead to the important conclusion that molecules in solution are in a condition closely analogous to that in which they exist in the gaseous state.

Suing a Chemist.—At the Cork Quarter Sessions last week an old woman named Harrington sued Mr. James W. Ashe, veterinary chemist, Blackrock Road, for 10*l.* damages for injuries sustained by being attacked by three dogs, the property of the defendant, into whose establishment she was going on business. Evidence having been heard, a decree was given for 4*l.* and costs.

Deaths.—The following deaths are announced at Dublin: On January 14, at his residence, Woodhouse Terrace, Dr. Edward H. Bolland, L.A.H., late director of the Apothecaries' Hall of Ireland. On January 16, Mr. Thomas Willis, apothecary, at the Medical Hall, Upper Ormond Quay; and also on the latter date of Mr. Richard G. S. Kitchen, for many years chief managing chemist to Messrs. Hamilton, Long & Co., Lower Sackville Street. Influenza is ascribed as the cause of the sad occurrences.

Contracts.—The directors of the Belfast and Northern Counties Railway Company notify that on Friday, February 14, they will consider tenders for a year's supply of druggists' sundries, samples of which can be inspected at the company's stores, where the forms of application can also be obtained. The proposals must embrace the usual stipulations as regards carriage, quality, &c.—At a special meeting of the Cork Corporation, held last week, the following were appointed contractors for the ensuing year:—Messrs. Fair & Ridge, Patrick Street, for druggists' sundries; Messrs. Kiloh & Co. and Harrington & Son for other descriptions of medicinal and sanitary requirements.

SCOTLAND.

Dundee.

Chemists were working here all day on Sunday owing to the influenza epidemic. Such a thing has not happened before in the memory of the oldest inhabitant. One chemist reports that he took 30*l.* for influenza remedies alone in the week previous. This is unusual in a town where few businesses draw more than 20*l.* a week.

Chemists' Assistants' and Apprentices' Association.—The second half of the session was inaugurated on Thursday, January 16, 1890, in the rooms, 74 Commercial Street. There was a large attendance of members and others, the president, Mr. John Forsyth, in the chair. After the minutes of the last meeting had been disposed of, the chairman called on the secretary (Mr. T. C. Henderson) to read a paper by Mr. Peter MacEwan, F.C.S. London, on "How to Prepare for the Minor." In this paper the author referred to the conditions for study which exist in Dundee, giving it as his opinion that the educational facilities provided by the University colleges and other local institutions were such that Dundee chemists' assistants could say that they were as well off in this respect as those of any other town in the kingdom. He then proceeded, after a few words of advice to those who had not passed the Preliminary, to give a sketch of a plan—which he had followed with advantage in Dundee—for utilising spare time for the purpose of private study. This plan, being specially devised to suit the circumstances of local students, need not be referred to at length. In the next section of the communication, Mr. MacEwan spoke of the system of reading which should be adopted, and he thought that reading should not be confined solely to books relating to pharmaceutic sciences, but that at least two clear days per week should be devoted to sound general literature, or that otherwise the student should have a rest from his studies. A selection of books for private study was given, and an abstract of Professor Attfield's scheme for the profitable study of the British Pharmacopœia formed an interesting part of the communication. In addition to these matters, the author gave some hints on testing, with particulars of the apparatus and reagents which were required. The object of the communication was, he stated, to induce home study to be kept up in a continuous fashion from the time an apprentice or assistant has passed the Preliminary until entering for the Minor. He thought that such study, extending over one, two, or three years, along with attendance at local science classes, was as good an education as can be obtained by the provincial student, and he claimed that it did away with the necessity for a short period of hasty coaching immediately before the examination. He did not, however, advise the student to rely entirely upon self-tuition, but to devote some time to revisal under a competent teacher before entering for the Minor. The utmost attention was paid by all during the reading of the paper, and at the close several of the members spoke on its many merits. It was the unanimous opinion of all that the subject had been well-chosen, and that it would prove an excellent guide to all in their future study. On the motion of the vice-president (Mr Skinner), a very hearty vote of thanks was accorded to Mr. MacEwan.

Glasgow.

The Greenock Aerated Waters Company has declared a dividend of 10 per cent. per annum.

A Chance for Budding Genius.—An advertiser in a local paper offers 1*l.* for a method to purify (*sic*) antimony metal from being brittle.

At the opening meeting of the Andersonian Chemical Society last week, Professor Dittmar gave a lecture on "Fermentation," which was on the usual lines.

The Influenza Outbreak is Subsiding.—Dr. Russell, the Glasgow Medical Officer of Health, pronounces against the exotic theory, but suggests that in some cases the contagion may have been imported, while it has been noticed that grooms, &c., who work among horses which have recently been affected with a peculiarly virulent catarrh familiarly called "pink eye," have fallen victims to an exceptionally severe form of influenza. Dr. Russell is not sure that this is more than a curious coincidence, but considers it probable that there may be some casual connection between the equine and the human form of the disease.

Chemists and Druggists' Assistants' Association.—At the meeting on Wednesday evening, January 22, Mr. Wm. Bowie was to have given a paper entitled "Some Notes on Economic Botany," but when the critical moment arrived Mr. Bowie explained that he had been the victim of some misunderstanding, and was not aware until the morning that his paper was due that evening. He was accordingly unprepared, but, with the consent of the meeting, he read some notes on "The Peculiarities of Plant Life," dealing with familiar and interesting phenomena regarding the productive activity of plants, including the modes of self and cross fertilisation, and with the geographical distribution of plants and other subjects of that nature. He ended by commending the study of botany as a refining and elevating pursuit. Messrs. J. P. Gilmour, Robertson, Robb, Robinson, and Harley afterwards commented upon the paper. The committee reported that they had fixed the conversazione for February 21 next.

Portobello.

Mr. Finlay McGillivray has just taken over the business of the late Mr. Alexander Hutton, at 78 High Street, Portobello.

A Living Emetic.—A servant who did not find her way very promptly to the kitchen one morning was visited by her mistress, who found her in bed, suffering from pain and violent sickness. She explained that she had a cold, and had taken some medicine which had been recommended for the children. "How much did you take?" asked her mistress. "Well, mum, I went by the directions on the bottle. It said, 'Ten drops for an infant, 30 drops for an adult, and a tablespoonful for an emetic.' I knew I wasn't an infant or an adult, so I thought I must be an emetic, and the pesky stuff has pretty nigh turned me inside out."

CHEMISTS' ASSISTANTS' ASSOCIATION.

AT a meeting of the Chemists' Assistants' Association on January 16, a brief note by Mr. F. Ashley Rogers on

"FAVOURITE INFLUENZA REMEDIES"

was read. His experience, confirmed by other dispensers present, showed that quinine heads the list, in 2-grain or 3-grain doses, in the form of ammoniated tincture. Salicin comes next in 20-grain doses, every hour for the first 6 hours or longer, and then every 2 hours or 3 hours. Antifebrin and antipyrin in 5–10-grain doses were much used. Tincture of aconite in doses of 2 minims or 3 minims, with acetate or citrate of ammonia, was also a favourite.

Inhalations were largely used simultaneously with the administration of the above. Carbolic acid, oil of eucalyptus, and menthol were in greatest favour. A good mixture resulted from the following:—

Liq. ammon. fort.
Tinct. iodi.
Acid. carbolic.
Ol. eucalypti
Saturated sol. of menthol in S.V.R., equal parts of each.

To be inhaled from spongc.

Mr. E. RICHARDS drew attention to a microscopical slide prepared by Martin J. Cole, of the bacillus of Russian influenza of the expectoration taken on the sixteenth day. It was dried on cover and stained in methyl aniline violet, and mounted in Canada balsam. It is also interesting to notc that Mr. Cole's observation agrees identically with the results arrived at by Dr. Lennox Browne.

Mr. J. INCE then read a paper on

MACERATION—NYCHTHEMERUM PROCESS.

By "Nychthemerum" is meant maceration for a night and a day, in other words, for 24 hours. Forty years ago the process was in vogue as an adjunct to distillation. Compared with other processes, maceration has fallen into neglect, but it was suggested that its use might be advantageously extended and revived.

Two centuries ago, date 1689, aqua rosæ, aqua sambuci, aqua menthæ piperitæ, and aqua menthæ sativæ were distilled by the nychthemerum process, and, starting with aqua distillata, were drawn over in the order named. It is a curious, but undoubted, fact that immediately after these distillations are completed it is difficult, even for an expert, to distinguish one from the other; the aroma characteristic of each seems to be latent. They should be stored in loosely-closed vessels, carefnlly protected from the intrusion of foreign matter, and specially from dust.

Referring to mediæval practice, he quoted, amongst others, from the "Secretes of Alexis," date 1652, as follows:—"But you must stamp well the herbs and bray the spices well; then put all together in an earthen pot leaved; and after it hath stood in the sun by the space of two days, distil it in Balneo Marie. And to the water that issueth out put a scruple of fine musk, letting it stand afterwards in a vial of glass well stopped by the space of twenty or thirty days. Then shall you have a notable water."

We have other illustrations, in which maceration for 10, 4, 6, or certain days is required.

While we regard mediæval chemistry as inexact, and, in many instances, not free from the charge of being foolish, a good deal of old pharmacy is entitled to respect.

We accept as convenient preparations many spirits of the B.P., which, in the recognised sense of the term, are not spirits but simple solutions in alcohol; such are the preparations containing the oils of cajuput, cinnamon, juniper, peppermint, and others.

We object that aq. menthæ piperitæ and aq. menthæ viridis should be made by throwing their respective oils into water and without the delay of an instant, being drawn over as distillates. Once more we are confirmed in appreciating the wisdom of the adage which bids us "hasten slowly."

Some pharmacists regret that in the spiritus armoraciæ compositus, which is a true distillate, the nychthemerum process of maceration has not been deemed worthy of adoption. Water is introduced to determine the extraction of the active principle, but its function is partly paralysed by being mixed with the proof spirit, and distilled forthwith.

Others again object to the instructions given to bruise certain fruits before submitting them to distillation. The bruising of an aromatic substance should be resorted to only from necessity; and the necessity is avoided by the nychthemerum process of previous maceration.

After citing the evidence of eminent continental pharmacists of to-day on the point, Mr. Ince remarked these men who were the least likely to be guided by sentiment or tradition retained the courage of their convictions, and a working London pharmacist is not to be blamed if, supported by his own experience and hereditary practice, he ventures to imitate their example.

Aroma is a medicine—describe it scientifically as a property due to an essential oil; to an acid such as benzoic or cinnamic; to a volatile product of distillation, or to an odorous glandular secretion: describe it popularly as a scent, an odour or a perfume, it is of distinct value as a remedial agent. To consider it simply as an agreeable adjunct and on a level with the adjectives, grateful and comforting, attached to the cocoa of epic fame, is an error of judgment, if not something else.

Mr. Ince also advocated the adoption of maceration as the sole process in the preparation of the compound tinctures of cardamoms and senna; and favoured the old plan of subjecting rhubarb root to the previous maceration process, though he was careful to emphasise the statement that no comparison was meant to be instituted between maceration and percolation to the disparagement of the latter. He suggested the desirability of making (for educational purposes) certain official preparations in more than one way, and recommended spirit of nitrous ether as an example, and concluded by remarking that "were we to judge of any process by imbecile manipulation there would not be one left in pharmacy to merit our adoption; nor can imperfect work be accepted as an argument against the legitimate and conscientious use of maceration."

A third paper entitled "A Country Walk on December 25, 1889," was contributed by Mr. W. A. Salter. It bore evidence of a close acquaintance with natural history, and the possession by its author of powers of minute observation.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

VACCINATION PREMIUM.—Since 1888 the city of Paris gave to parents bringing a child to be vaccinated the sum of 3f., which of course no one was obliged to accept. From January 1, 1890, the premium has been lowered to 2f., and the balance is to be applied to the extension of the animal vaccine service.

PROFESSOR EUGENIO BELTRAMI, of the Pavia University, was on January 20 elected a corresponding member of the Academy of Sciences for the section of mechanics. The professor, who is known for many important memoirs on mathematics and mechanics, is a member of several scientific societies, among them the Bologna Institute.

CHEMISTS IN THE CHAMBER OF COMMERCE.—M. Suilliot, a chemical manufacturer, and M. Fumouze, a chemical and pharmaceutical manufacturer, received at the first ballot a plurality of the votes, and, on the general committee's recommendation, will probably at the second ballot be elected for five years and one year respectively.

SUICIDE OF AN INTERNE PHARMACIST.—A sad affair occurred last week at the Bron Insane Asylum, near Lyons. An interne pharmacist, F——, aged 26, being suspected of an intrigue with some of the female inmates, was closely watched, found guilty, and ordered by the Director to leave the asylum. The young man repaired to his room, and soon was there found dead from strychnine poisoning.

DANGER OF WORKING RAW HORN.—Two fatal cases of anthrax have occurred in the same factory among workmen employed in chipping and planing the raw horns previous to steaming and carving. Both men, it seems, were wounded

in the face with flying splinters—a common accident. But in the present instance the horns, which came from Calcutta or Bombay, were evidently contaminated with carbon. In consequence the Council of Hygiene have recommended that, henceforth, all horns be steamed before any work is done on them. In the meantime a commission is busy examining the turpentine disinfecting process proposed by Pasteur, and now on trial in several factories at Saint-Denis. A report may soon be expected.

Fiscal Greed Defeated.—M. Triboudeau, employed by M. Barbier, a pharmacist, was prosecuted for introducing into Paris some 12 litres of tincture of bitter orange peel, without previous declaration or payment of duty according to the law's provisions respecting spirituous liquors. Last week, before the Seine Correctional Tribuual, the prosecutor argued that the exemption of medicinal preparations did not apply in the case becau: e, (1) as proved by expert Villiers' analysis, the tincture was below the Codex strength, namely 60° instead of 80°; and (2) said tincture may be used for making curaçoa and other bitters. But the court held that the difference of alcoholic strength was not material; that the tincture is a regular Codex preparation; and that if the theory be once admitted that the possible use of a preparation for a beverage renders it liable to duty, the same argument may be employed by fiscal authorities with all medicinal preparations, and the law will be nullified. Consequently the complaint was dismissed, without costs against defendants.

Forged Morphine Prescriptions.—A few days since a boy, some ten years of age, presented to M. S——, a pharmacist in the Rue St. Maur, a prescription for a certain quantity of morphine. Although the document was signed with the name of a doctor well known in the neighbourhood, the dispenser was for some reason convinced that the prescription was a forgery, and gave the boy in charge. At the police station the youngster said his name was Eugene M——, and his father lived in Rue du Corbeau, but he refused to give the street number or further information. On searching him fourteen other prescriptions were found, all for morphine, and all signed with the same name. The pharmacists' stamps, affixed on a number of them, showed that no little morphine had thus been obtained. The boy was held until he consents to explain. Most likely he was sent by some morphinomaniac unacquainted with modern improvements, as nowadays lovers of the drug get it by the ounce from wholesalers at far less trouble and expense.

GERMAN PHARMACEUTICAL NEWS.

(From our Berlin Correspondent.)

A Case of Colchicum-poisoning occurred the other day in Elberfeld. A publican commenced to take the liquor colchici compositus prepared by Dr. Miglius, of Leipzig. Although it is specifically stated on the bottles that not more than two teaspoonfuls should be taken during the twenty-four hours, the unfortunate "restaurateur" exeeeded this dose, and died a victim to his own recklessness.

A New Albumen.—It is announced that Professor Harnack, of Halle, has succeeded in isolating pure uncombined and ash-free albumen. The properties of this substance seem to be very different from those of ordinary albumeu. For iustance, it forms a solution with water which is not coagulated by heat nor by alcohol, ether, phenol, or tannin. It can be precipitated by neutral salts and by acids, but not by alkalies. It seems possible, therefore, that the coagulating properties of ordiuary albumen are due to the presence of mineral matter.

Hydrastinine is the name of a new active principle obtained from the golden seal (*Hydrastis canadensis*), which has been investigated in the Pharmacological Institute of Berlin. It has the formula $C_{11}H_{13}NO_3$—that of hydrastine being $C_{21}H_{21}NO_2$—and occurs in the form of a white amorphous powder, melting at 116° C., soluble in alcohol, ether, and chloroform, and to a smaller extent in water. Dr. Falk has used it in twenty-six cases, injecting 400 times various doses of a 10-per-cent. aqueous solution of hydrastinine hydrochlorate; he believes it to be a good substitute for preparations of ergot. His experiments were carried on with an article produced by Messrs. Parke, Davis & Co.

Uranium and Diabetes.—Professor Robert has communicated to the Natural History Society of Saxony and Thuringen the results of his researches on the deleterious effects of uranium—which is now used in the manufacture of colours—upon the health. Professor Chittenden has recently suggested that uranium might cause diabetes, a possibility which Professor Robert confirms. He, indeed, adds that the substance is able to induce even the more severe form of diabetes mellitus, in which sugar is physiologically produced, although no kind of carbohydrate be taken. A characteristic of uranium-poisoning is the tissue-change which occurs in the kidneys, leading on to uræmia and death. It seems that this metal may be regarded as more poisonous than arsenic, whether it be taken by the mouth or injected hypodermically.

Sulphonal.—The high price at which sulphonal was first introduced is still being reduced. Manufacturers are vieing with each other as to who shall offer it at the lowest figure and so secure the trade in the article. Somewhat in the style of a "clearing-out-at-great-reductious" sale, sulphonal is listed in druggists' prices current at 13*s.* 6*d.* a lb., "cheaper in larger quantities"! This is a remarkable reduction from the 90*s.* a lb. of two years ago. Altogether the rivalry of the various sulphonal and phenacetin manufacturers is amusing. One will insinuate in his advertisements that the others make "spurious imitations," whereupon his competitors proceed to strenuously combat the aspersion. If the two products had been patented much heart-burning and ill-feeliug would have been prevented among chemical manufacturers. However, the competition continues, so that it would seem that the preparation of the remedies pays at any price.

The Influenza is decreasing in this country, or at least in this city. From a business point of view this decrease may not be regarded by proprietors with unmixed feelings of pleasure, but in the case of assistants considerations of personal and of humanitarian interest will coincide. For the last six or eight weeks assistants have had to labour under a kiud of "sweating system," and wherever it was possible many pharmacists engaged extra help. In connection with the influenza Professor Virchow has announced that the Verein für Innere Mediciu has decided to conduct a combined iuvestigation of "the great medical incident," as Professor Leiden somewhat grotesquely calls it. A good number of names are already "on the list" of those willing to assist in the research. How some manufacturers have benefited by the epidemic may be estimated by the statement that during the last few weeks orders for antipyrin up to the value of 3,000*l.* have been received daily at the factory in Höchst. One of the popular remedies was recommended by Liebreich, under the name of "Apple tea." As such preparations are quite a novelty among galenicals the recipe may be interesting. The fruits were either simply cut into slices and an infusion made with hot water, or a decoction with sugar was prepared. Large quantities of these liquids were taken warm, and believed to be very beneficial.

Poisoning by Phosphorus Paste.—An inquest was held at Wallasey, Cheshire, on Tuesday last, touching the death of Mrs. Eliza Brewin, aged 59 years. Mrs. Brewin has for many years suffered from liver complaint and biliousness. On Saturday morning last she was seized with an attack, and became somewhat delirious. Her breakfast was taken to her, and some time afterwards a strong smell of phosphorus pervaded the room, but none of that poison could be found. As a number of matches were lying about, however, it was feared the unfortunate lady had been sucking these. Dr. Craigmile was sent for, and he administered an emetic, but Mrs. Brewin died the same night. The next day a small jar containing phosphorus, a considerable quantity of which had been taken out, was found in the dressing-table drawer. No one in the house was aware of the poison being there, but, as part of the bread Mrs. Brewin had been eating was found covered with the poison, there was no doubt she had swallowed a quantity of it. A verdict of "Suicide while temporarily insane" was returned.

London Hospitals.

GERMAN HOSPITAL, DALSTON.

TO our cosmopolitan nature Germany is indebted for the privilege of sending a part of her surplus population to earn their bread in this great centre of commerce. And no mean advantage has been taken of the privilege, for in London, Manchester, Liverpool, Glasgow, and other large trading cities, German financiers, German merchants, and German workmen have attained positions of influence and respect. Some are mere sojourners, who, in a few years' residence, acquire what experience they can, and return to Fatherland the better thereof; others (we believe the larger proportion) become naturalised, and their children own Great Britain for their Fatherland.

London has always had a large foreign community, but it has only been since the advent of the Hanoverian succession that German-speaking people have been proportionately so numerous as they are at the present time. It is believed that six-sevenths of the foreign population of London are of German origin. About fifty years ago they had become so numerous, especially among the artisan classes, that several of their more favoured and richer compatriots conceived the idea of establishing a district hospital for the German sick poor, in which they might enjoy the comfort of being surrounded by their countrymen, be attended by physicians, surgeons, and nurses speaking their own language, and receive advice and consolation from clergymen of their own confession.

By 1843 the matter took definite form; the King of Prussia give it his patronage, so did our Queen and her Consort, and before the year was out a start was made by the purchase of an old infant orphan asylum at Dalston. This accommodation served for a time, but as the institution was intended for the reception of natives of Germany, others speaking the German language, and English people, in case of accidents, the demand upon it soon outgrew its capacity, and by 1860 it was resolved to build a new hospital to accommodate 100 patients, and on several occasions since this building has been enlarged, so that it now accommodates 125 patients. Moreover, the organisation includes two convalescent homes, and two out-door dispensaries in the poorer localities of London. The hospital stands in its own grounds, and is most delightfully situated, there being abundance of shrubbery and well-cared-for gardens around it. From the first it has done a most useful charitable work; last year the number of patients treated was 26,500, of whom one-half were Germans, and about four-fifths of the remainder English. In one sense the hospital is not national, for anyone who can respond in the affirmative to "Sprechen Sie Dentsch?" and who is afflicted with disease, is admitted to the privileges of the institution. Under that rule natives of France, Greece, Holland, Italy, Java, Morocco, Norway, Palestine, Portugal, Roumania, Russia, Spain, Sweden, Switzerland, Turkey, and the West Indies, as well as Englishmen and natives of the Austrian and German States, have felt its benefits. Such then is the organisation over which the Duke of Cambridge presides.

In several respects the dispensary of the German Hospital has distinctive features, which entitle it to a place in our account of the London Hospitals, apart from the fact that it is one of the twelve chief hospitals. The resident physicians, Drs. Reiche and Lacher, and the consulting staff are all graduates of German universities, so that the medical practice of the hospital is essentially German. In respect to equipment, the hospital compares decidedly favourably with the larger institutions. For instance, there are two well-fitted laboratories for pathological and chemical research, the fittings including several microscopes and their accessories, a delicate chemical balance, spectroscope, polarimeter, and other instruments of precision which one does not generally find in a hospital. These laboratories are situated in the main building of the hospital.

The Dispensary

is located in a separate building, where the physicians and surgeons attend to the outdoor patients. The dispensary



VIEW OF THE DISPENSARY.

proper is a rather spacious apartment, the arrangements of which can be best judged from a pencil sketch and a ground plan. The latter shows the dispensary proper A, the room B



being where the patients wait for their medicines; C and D are working laboratories for the manufacture of stock, a good portion of the wall-shelving and cupboards being used for storage, to which purpose apartment E is also applied.

The whole of the arrangements of the dispensary are very similar to what we find in other hospitals; there are a few differences in details, and these we shall refer to. The work done in the laboratories is confined to such articles as can be made profitably, or which are not readily procurable from London wholesale druggists. We may mention here that all the hospital supplies are bought in London, the drugs by contract. A considerable number of British Pharmacopœia preparations are dispensed, but the most of them are German in character. Some of the stock preparations are different from the English, as, for example, the white cough mixture, for which the formula is:—

Liq. ammonii anisati, P.G.	℥x.
Spt. chloroformi, P.B.	℥x.
Aquæ ad	℥ss.

At this season of the year gallons of this mixture are dispensed daily, consequently the dispensary itself is thoroughly aniseated. The English system of measuring liquids is followed, although there are exceptions to this rule. Those who have studied the chapter on German dispensing in the "Art of Dispensing" are aware that it is the custom to weigh everything. The set of scales shown in our illustration is supposed to exist for this function in the German Hospital, but, truth to tell, they are employed comparatively rarely, and that only for the prescriptions of indoor patients and in compounding Pharmacopœial articles. A little hornful of shot is used for taring, and after the dispenser balances his bottle he proceeds to weigh his liquids, beginning with the smaller quantities, although the delicacy of the balance does not necessitate this. To the English-trained dispenser this may seem to be a very troublesome way of dispensing: in practice it is not so, because the prescriptions are much more simple than ours. Polypharmacy is common with us: it is rare with the Germans. Thus, when a German doctor is to give an expectorant mixture, he does not select, say, ipecacuanha, carbonate of ammonia, and senega, and throw the whole, with syrup and water, into a mixture. He considers that he would not know which one of the remedies did the good, so he sticks to one—ipecacuanha, or senega, or ammonia—according to the nature of the case. This is the direction in which British therapeutics is progressing, and, unquestionably, it is the direction of exact medication.

German Method of Powder-making.

German prescribers are also very fond of powders—too fond, indeed, for the comfort of hospital dispensers. Thus, antipyrin, 15 grains; salol, 15 and 30 grains; and sodium salicylate, 20 grains, all in powder form, are dispensed in the hospital to the extent of several gross a day. Were it not that the German system of powder-making is more rapid than ours, it would be difficult for the dispensers to meet the demand. A word in regard to this system. The powder-papers are bought ready folded, and only requiring the ends to be turned up and down (fig. A). In dispensing, say, a dozen antipyrin powders, the dispenser weighs his material, places it on a card about the size of a playing-card, then spreads a dozen horn scoops (like fig. B) on the counter and places equal portions of the material in the scoops. He then takes a dozen of the folded papers, turns one end up (as in A), and



Fig. A.



Fig. B.



Fig. C.

holding these in one hand, proceeds to put the contents of the scoops into them one by one (as fig. C), closing each paper as it receives its quantum of material. A dozen powders are completely dispensed, this way, in from sixty to eighty seconds.

Medicines Most Used.

A talk with the resident physicians and the apotheker, Mr. Helbing, in regard to the medicines principally used elicited some curious facts. So many of our new remedies come from Germany that one would naturally suppose that we should find them in vogue at the Dalston Hospital. "But that is not so," said Herr Apotheker; "we do not experiment in this hospital; we wait until the researches in the German clinics prove the value of what is new, and we only adopt a remedy when it is shown to be better than what we already have for the same disease." And in proof of this statement we were shown dust-begrimed and untapped original bottles of half-a-dozen remedies introduced within the past three years. Antipyrin is very extensively used, so is salol—indeed, the latter nearly in as large quantities as sodium salicylate. Iodoform is not so much used as it was at one time. Of the antiseptics employed corrosive sublimate is the chief, being used five times for four times of carbolic acid and twice of creolin; the last is making great inroads upon other phenol products, and is helping to displace iodoform. Amongst dermatological remedies ichthyol is the chief, apart from Unna's glyco-gelatine preparations, which are made on a large scale in the laboratory. Ichthyol is used in ointment form, the following being the recipes:—

(1)

	Parts
Ammonium ichthyolate	1
Lanoline ointment	9

(2)

Ammonium ichthyolate	1
Zinc oxide	1
Lanoline ointment	8

Naphthol and resorcin are other remedies which are in use daily. The antiseptic treatment of phthisis finds expression in the extensive use of Professor Sommerbrodt's creosote capsules, each containing 5 centigrams of creosote and 20 centigrams of tolu balsam.

Older-fashioned Drugs

are also employed with great freedom, and the laboratories are mainly used for the manufacture of what we may call standard preparations. Pills, for example, are much used. A few pounds of a mass are made at a time, the pill-kneading machine as figured by Werner & Pfleiderer being employed for massing, while the mass is piped with a vertical "piper," which is also used for making bougies (fatty and gelatine basis). The "piper" is a very expeditious means of turning

out bougies, and deserves to be better known than it is. Amongst the curious facts which our representative learnt on his visit was one in regard to linseed meal. "Do you know," asked Dr. Reiche, "how much linseed meal we use in the hospital every year?" "A few tons, I should suppose." "Not a quarter of a pound," said the doctor. "Then what do you make poultices of?" "Oh! we don't make poultices: they are old-fashioned, nasty, inconvenient, and not aseptic. We use the carbolised water compress, which is much better, and requires to be changed but once in twenty-four hours." "Is it the same in Germany?" "Yes, just the same. They used to tell us in the clinic that there was a tradition that long ago linseed-meal poultices were used instead of wet compresses; but it was so long ago that the accuracy of the tradition could not be vouched for." From this the conversation diverged to other German peculiarities, some of which have already been mentioned. The hospital is also peculiar in using for outdoor patients labels in two languages. The following caution-label is a good example:—

Caution.	Warnung!
An overdose of this medicine may be dangerous.	Von dieser Medicin darf nicht mehr als die vorgeschriebene Dosis genommen werden.

We desire to acknowledge here the courtesy extended to our representative by the medical staff and the apotheker, Mr. Heinrich Helbing, F.C.S., who has had charge of the dispensary for the past four years nearly. Mr. Helbing studied at the University of Munich, and passed his "staats-examen" at Darmstadt shortly before coming to London. During his residence here he has had several opportunities of showing his abilities as a pharmacist and original worker, and his communications to THE CHEMIST AND DRUGGIST have been frequent. Mr. Helbing is resigning his position at the hospital in order to start practice as a consulting chemist at 63 Queen Victoria Street. An English chemist is always attached to the dispensary as assistant dispenser, this position being held at present by Mr. Franklin Chalmers.

SULPHUR AS REFERRED TO IN THE BIBLE.

ALTHOUGH it is highly probable that the virtues of sulphur as a disinfectant were known to the Jews, yet the passages recorded in the Bible appear, for the most part, to have reference to its use as an instrument of divine vengeance. Moreover, with the exception of sulphurous acid vapour, which would be evolved in its connection with fire, the medicinal properties of sulphur find no mention.

The Hebrew word is connected with gopher wood, of which Noah was directed to build his ark. The wood, after the construction of that remarkable vessel, being subsequently coated, both inside and out, with pitch. From the particular tree from which this wood was derived a gum or resin exuded, and this, to a greater or less degree, was of course inflammable. Hence the original word, while at first signifying the exuding gum-resin of gopher wood, was afterwards transferred to other inflammable substances, and more especially to sulphur, of which immense quantities were probably then found on that portion of territory now covered by the Dead Sea. Even at the present day small lumps of sulphur are found on the shores of this inland sea. As indicative of its connection with fire, the original translators of the Bible invariably employed the old Saxon word brimstone, a corruption of "brin" or "bern-stone," and this word is thus found in Wyelif's Bible.

The first record of the use of sulphur as an element of divine vengeance occurs in Genesis (xix. 24, 25), in what is commonly known as the destruction of Sodom and Gomorrah, the cities of the plain: "Then the Lord rained upon Sodom and upon Gomorrah brimstone and fire from the Lord out of heaven." It must be remembered that the soil of this region of Palestine at that time abounded with sulphur and bitumen. There is nothing very incredible, therefore, in the fact that these cities were destroyed by a rain or storm of fire and sulphur, seeing that they were built among such inflammable material. Even if natural means solely had been brought into requisition, volcanic action from below, or lightning from above, would have been easily capable of kindling this vast mass of highly combustible matter. Thereby a vast conflagration would have ensued, which would not only have served to destroy, beyond a trace, these cities, but at the same time would have hollowed out the surface of the plain, giving plausibility to the words (*Ibid.* xix. 28): "The smoke of the country went up as the smoke of a furnace." Then as the conflagration extended towards the coast, the sea rushing in would convert the plain into a large tract of water, forming the Dead Sea of to-day.

We may reasonably conclude that the Hebrews were aware of the destructive action of sulphur fumes upon vegetation. In Deuteronomy (xxix. 23) we find the following striking passage: "And that the whole land thereof is brimstone and salt, and burning, that it is not sown, nor beareth, nor any grass groweth therein."

There is a curious passage in the book of Job (xviii. 15), in which the wicked man is referred to as having "brimstone scattered upon his habitation." This is sometimes thought to refer to the practice of fumigating houses when they had become unclean, a process which was much resorted to by the ancient Greeks and Romans. In this case, as a possible explanation, it may be thought to have reference to the fumigation of a house after the wicked man has been drawn therefrom in order to make it again habitable.

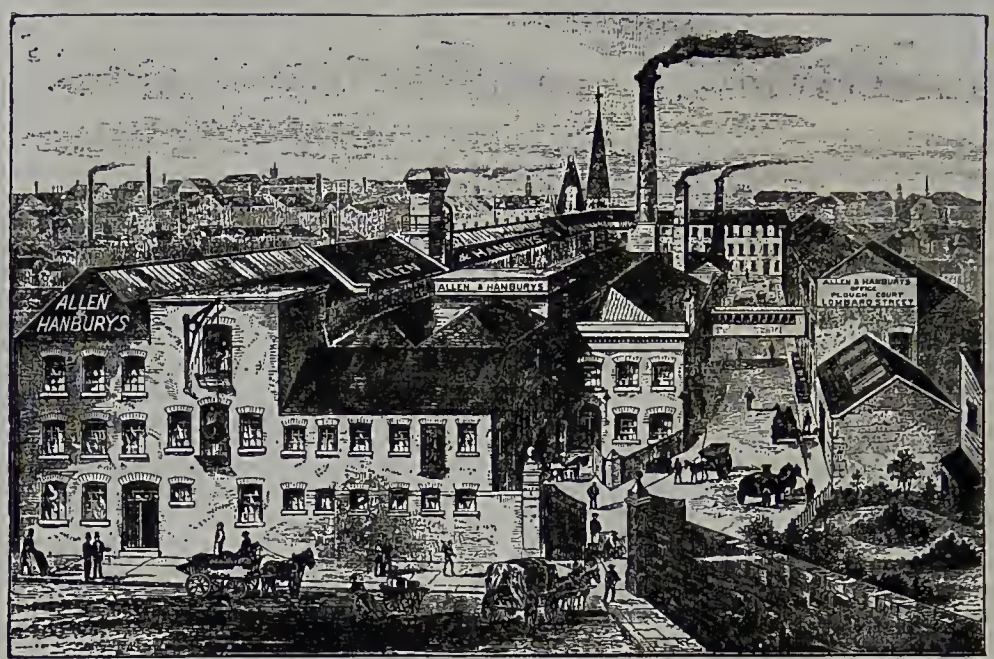
In all probability the Jews made use of sulphur as a disinfectant to prevent disease. On the south side of Jerusalem was situated a deep narrow glen called the valley of Hinnom. In this locality an idol of Moloch was erected, to whom, after the introduction of fire worship by Ahaz, the Jews offered their children as human sacrifices. In consequence of the abominations that were carried on in connection with these pagan rites, the valley was considered to be polluted by Josiah, 2 Kings (xxiii. 10): "And he defiled Topheth which is in the valley of the children of Hinnom, that no man might make his son or his daughter to pass through the fire to Moloch" The valley of Hinnom, or Gehenna as it is usually termed, then became the common lay stall or refuse yard of the city. Here the dead bodies of criminals, the carcases of animals, and every kind of filth and offal was deposited. The use of fire in that place dates from the time, of Ahaz. In the second book of Chronicles (xxviii. 3) we read that Ahaz burnt incense in the valley, and also burnt his children in the fire, a revolting form of heathen worship peculiar to the God Moloch. Subsequently, when it became a practice to throw all kinds of animal refuse, dead bodies, &c., into the valley, it became essential, in order to avoid pestilence and widespread disease, for large fires to be burnt. In these fires decaying animal matter was destroyed, while they also served to render innocuous any offensive effluvia. We may gather from a quotation in Isaiah (xxx. 33), "The pile is fire and much wood, and the breath of the Lord like a stream of brimstone doth kindle it," that sulphur was used on these occasions as an additional aid to secure thorough disinfection.

Ultimately the word Gehenna was used symbolically as the place of future punishment of the dead—the Hell or Hades of our modern days. No doubt the use of fire and brimstone in a metaphorical sense came, in course of time, to pose as a fitting punishment for the wicked or mentally polluted. As a symbol of divine wrath the use of fire and sulphur is repeatedly referred to in the New Testament, and more especially in the book of Revelation. As, therefore, in the time of the Old Testament the use of these elements was considered to be the most effectual means of disposing of unclean and vile refuse and rendering inert poisonous vapours emanating therefrom, so, no doubt, it afterwards served in the eyes of the Jews as a good simile to warn them that a similar destruction by the same agency would be the lot of the evildoer. H. VALENTINE KNAGGS, L.R.C.P.

A LANOLINE REACTION.—According to Vulpius, if a few centigrammes of lanoline are dissolved in chloroform, and if this solution is cautiously poured on an equal volume of sulphuric acid in a test-tube, there appears at the point of contact a fiery brown-red ring. The chloroform above the ring has a violet reflection.

MESSRS. ALLEN & HANBURYS.

WE believe it is only some fourteen years ago since the famous old City firm of pharmacists whose name heads this article made their *début* as wholesale druggists, and we are told that the development of their business as manufacturers and wholesale dealers has occurred almost entirely within the past ten years. They had undoubted advantages: a name to conjure with, the experience and traditions of a century and a half in the trade, and abundant capital to meet all exigencies of modern business. But after allowing for these excellent equipments, their progress—in the face of the vigorous competition which now prevails—has been somewhat astonishing. We heard that they had lately extended their manufacturing premises at Bethnal Green, and our town traveller thought the opportunity a good one to call upon them. He had a very polite reception, and was shown round both the new and old premises. The new buildings are very spacious, more than doubling, we should suppose, the working area previously occupied. The warehouses and factories altogether now cover an area exceeding 27,000 square feet. The full frontage measures 170 feet, and the depth on the west side is 340 feet. At the time of our representative's visit most of the departments were in full work in their new quarters, and a walk through the many floors and sections showed how carefully and skilfully the new buildings had been designed with a view of introducing such conveniences and arrangements as had been suggested by experience.

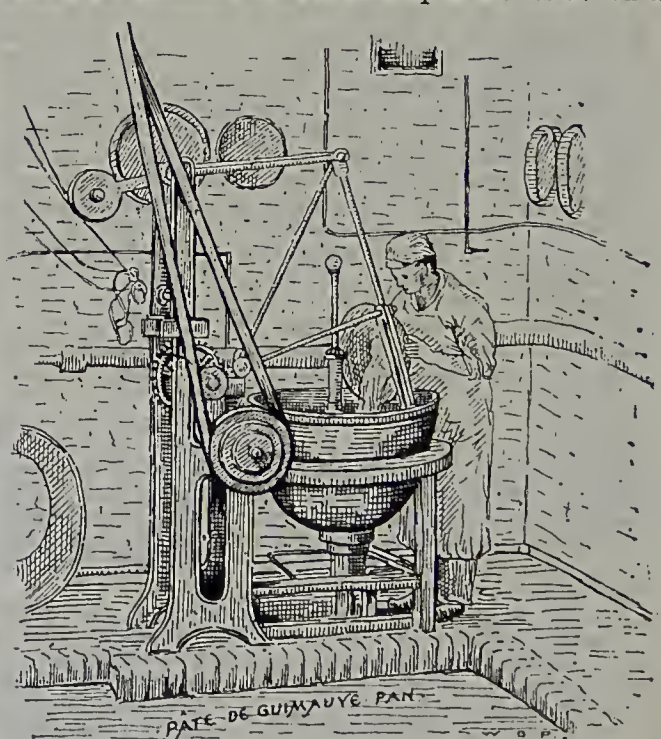


WORKS AT BETHNAL GREEN.

Messrs. Allen & Hanburys' business at Bethnal Green is a collection of several distinct manufacturing operations worked along with a general wholesale drug trade. Jujubes and lozenges are produced on a very large scale; extract of malt and its combinations is another extensive business; there is a department specially set apart, and rather jealously guarded, where the well-known oils are prepared; and there are, besides, all the usual developments of a modern manufacturing pharmaceutical business.

The Jujube Department

is of particular interest, especially as it is a little out of the usual run of what we see in drug warehouses. This is located in the old part of the building. First we enter the "jujube laboratory," a spacious and lofty room, beautifully light and scrupulously clean. All round by the walls various jujube pastes are being produced in steam pans of different capacities. In one of the largest about 4 cwt. of gum was being dissolved. A mechanical stirrer, driven from a shaft crossing the laboratory, kept the contents in continual motion. There was another pan in which *Pâte de Guimauve* was being prepared. The pan itself was kept revolving, and by an ingeniously constructed stirrer the paste was being worked simultaneously in a circular and in a vertical direction. To attain the proper consistence and character this paste seems to require an enormous amount of this whipping, beating, and stirring. If the machine is constantly at work it turns out about 1 cwt. of the *Pâte de Guimauve* or *Pâte de Lichen* daily. There are more steam pans in an adjoining apartment of the same size, and here we watch the interesting process of moulding the pastilles. The moulds are made in a few minutes by dibbing with suitably shaped pieces of wood on shallow trays filled with starch powder. Then comes a man with a vessel containing the jujube in a molten condition. The vessel has five spouts, and five moulds are therefore filled at each tip of the vessel. In a very few minutes the tray is filled, and is carried away into a drying-room for the pastilles to set.



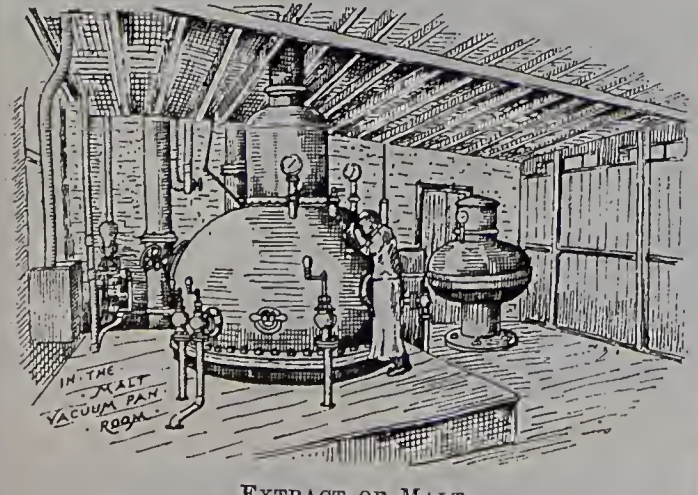
Adjoining the laboratory we peep into the store-room, where tons of gum and sugar and other materials are kept, and as we pass on we look into a small room, where several girls occupy themselves exclusively with the manipulation of the starch, sifting it, filling the trays, &c. They are dressed in pretty caps and frocks, and are white as millers, presenting one of the most picturesque scenes of the establishment.



STARCH ROOM.

Afterwards we see the dried pastilles being sifted from the starch, then washed, and lastly stuck on pins, dipped in a gelatine bath, in order to receive the final coating, and then by a simple little piece of machinery deftly removed from the pins without any contact with fingers, and passed into store trays ready for packing into tins.

The manufacture of pastilles, which we have briefly described, is only one of the operations of this department. The square or oblong jujubes are, of course, prepared in sheets, and cut by special machinery; all sorts of medicated lozenges are being manufactured in paste, stamped by hand, and subsequently dried. Elsewhere acidulated drops and other boiled goods are manufactured. We look into a top drying-room as we pass along, and see trays of finished jujubes stacked on a framework, so planned that currents of dry air pass through the whole. The quantity of stock represented there is calculated by tons. The lozenge factory, which is quite distinct from that where the jujubes are made, seems to be almost, if not quite, as big a business.



Extract of Malt

is a very important speciality with Messrs. Allen & Hanburys. It occupies three large floors. The malt, having been raised by a steam-lift to the top floor, where it is stored and ground, is thence passed down a shoot to the mashing tun on the ground floor. Hence the wort is supplied to the vacuum pans, and here are three air-pumps—one for the smaller pharmaceutical pan worked from a shaft running through the apartment, and two for the malt pans, each worked by an engine of its own, the engine and pump for the largest pan being a very powerful machine, while that for the second though not so large, is remarkably compact and pretty in construction. The malt pans are worked on the first floor, the larger one being let through the floor for about its lower third. From the top of its large copper dome rises the wide tubular connection with the condenser, which it joins above the roof, a special construction with iron ladder and gallery having been built for it. The condenser is of the construction known as Gegenstrom's, and it is found to be very effective. This pan was working admirably when we saw it, the liquor boiling vigorously at a temperature bearable by the hand, and seeing the power and efficiency of the apparatus we were scarcely surprised to find that this one pan easily produces 12 to 14 cwt. of extract in the day.

A considerable quantity of extract of malt is used in the manufacture of the

Malted Food

for which the firm have made a high reputation, and this manufacture occupies a considerable space and numerous hands. The cooking and combination of the food with the extract of malt is followed by a process of drying in a special apartment, where the temperature is very carefully watched. When completed it is raised to a large apartment on the first floor, where it is tinned, labelled, and finished for despatch from the warehouse.

The very frequent recurrence of artificially-warmed rooms as stages for most of the manufactures which we are visiting suggests a question as to the number of these apartments, and we are told that in the works there are in all

Seventeen Drying-rooms

in use. As we continue our peregrinations we come upon a department where castor and cod-liver oils are specially treated to yield the well-known special products which Messrs. Allen & Hanburys have so extensively advertised. We shall have to postpone our description of the processes employed till a more convenient occasion. The department was resting at the moment of our visit, and the proprietors manifested a tendency to change the conversation when we inquired about the details, so that what we do not know

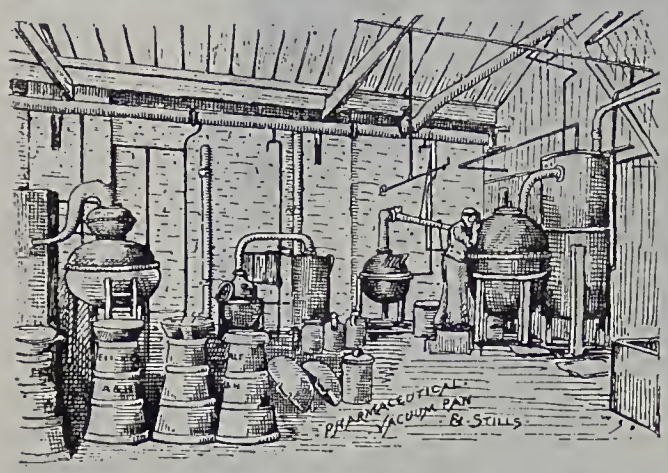
about it is the exact measure of the information we can give as to

How the Tasteless Oils are Prepared.

The departments already mentioned are, after all, only the outer limbs of the business carried on at Bethnal Green.

The Pharmaceutical Laboratories and the Drug Warehouses

form its body. The chief manufacturing laboratory is a room 130 feet long by about 20 feet wide, with rooms annexed on one side, each about 28 feet deep. This laboratory is covered by a ventilating glass roof, and is beautifully light and airy. In this building are stills, condensers, and steam pans in great variety, and here and there amid modern apparatus we find utilised some of the older pharmaceutical appliances which have been handed down from the ancestors of the firm. For instance, at one end of the laboratories was an old-fashioned sand-bath with furnace beneath. The extent of the pharmaceutical operations here carried on



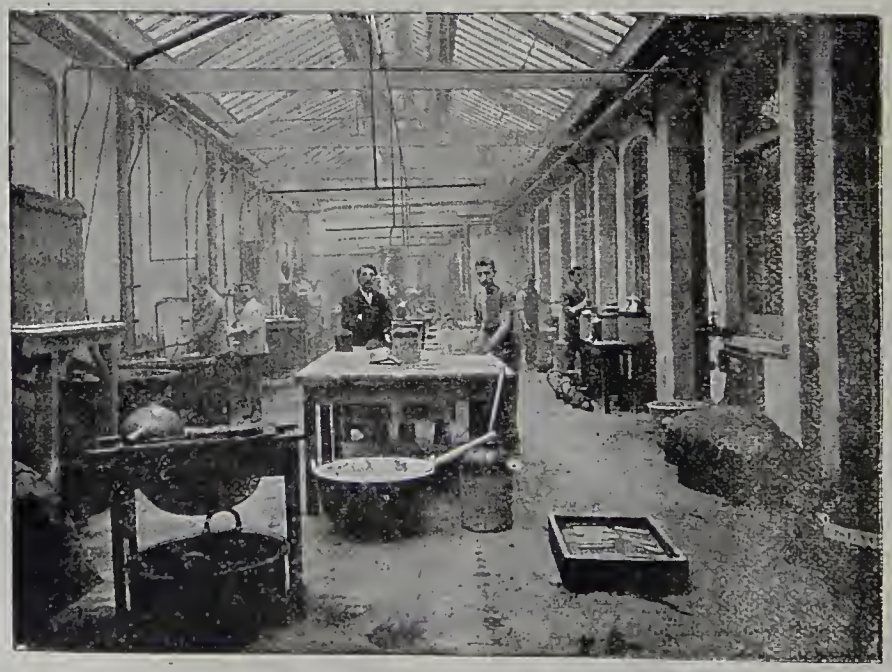
may be estimated from the fact that there are twenty-four open steam jacketed pans, the largest of which has a capacity of 300 gallons. Most of these are of copper, but there are some of cast iron, some of iron enamelled, and others of block tin. At the other end was a large water-still, and in communication with the apartment a comfortable room, where a large series of various sized percolators is arranged on a wooden stage under the skylight, giving the operator every opportunity of seeing his work while the packing is proceeding. The grinding of drugs is carried on in another apartment, and the "wet" warehouse itself occupies three distinct rooms, two of which are devoted to uninflammable fluids, such as concentrated infusions and decoctions, fluid extracts and weak tinctures, and the other to strong spirits, ether, &c. This latter room is of large size and excellently lighted by a skylight the whole length of one side and about 4 feet wide. Special care has been taken here to minimise the risk of fire. The ceiling is formed of patent fire-resisting plates, and the apartment is lighted by two large Wenham lights, so arranged that they are supplied with air by pipes from the outside, and the products of combustion are similarly carried away, so that the flame is completely excluded from communication with the atmosphere of the room, and as the flame is not entirely extinguished by turning off the tap, relighting is not required.

Besides these rooms and the warehouses, stores, and packing departments, there are sections devoted to the



A SIDE OF ONE OF THE PILL-ROOMS.

manufacture of granular effervescent preparations, coated pills, and compressed tabellæ. Mr. F. J. Hanbury brought the



IN THE PHARMACEUTICAL LABORATORY.

and well-equipped private room and experimental laboratory for the manager of the department.

The manufacture of tinctures, &c., is conducted in another first machine the firm used for making tabellæ from America, after visiting the Centennial Exhibition in 1876, and six or eight more were subsequently added; but these are now all

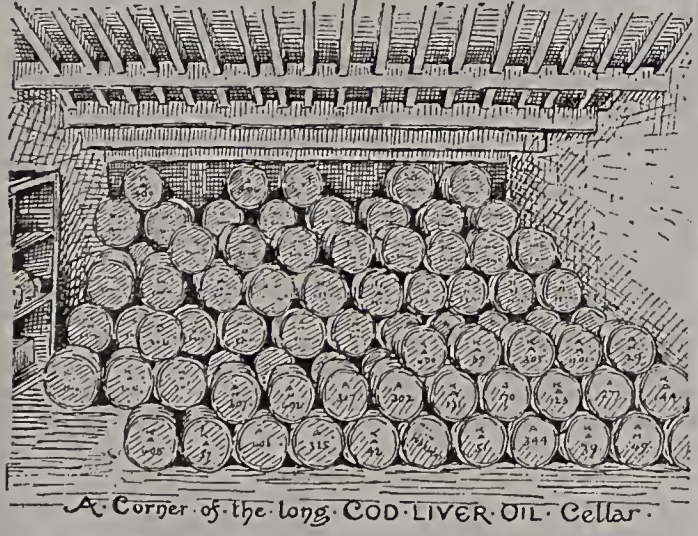
superseded by automatic machines of great ingenuity. Pills are made and coated on a scale of considerable magnitude, six rooms being devoted to this department. The stock-room for finished pills is very compactly arranged in cabinet style.



ONE OF THE FINISHING ROOMS.

In the middle of the buildings are to be seen long workrooms, where a number of girls are employed bottling, boxing, labelling, and wrapping the various products of the house, which are then transferred to the adjoining warehouse for packing and delivery to carts, for which a specially covered yard is provided.

A considerable part of the old building is now utilised as a bottle department. On one floor new bottles are received. On another old ones are cleaned, elsewhere they are dried. Near this, too, is a carpenters' shop, where most of the joinery required all over the premises is produced, and in cellars underneath we find big stores of cod-liver oil in casks. One of the bays of the cellar is shown in our sketch,



A Corner of the long COD-LIVER OIL Cellar.

but it by no means represents the stock. This is heaviest about April, after the arrival from the firm's factories in Norway of the produce of the season's fishing.

The various operations of this factory obviously require large amounts of heat and power, which are furnished in all parts. There are numerous engines worked from two boilers. The original one of 40-horse power is what was provided for the works until recently. A new fine Galloway boiler of 80-horse power has now been fixed, and both are used as required. The new boiler is situated in an open yard protected by a corrugated iron roof. Beneath the yard is a large underground tank, in which the rain-water from the extensive roofs is collected, and also the condensed water from the numerous pans, steam-heated rooms, &c., and thence by a Worthington pump it is forced into the boiler at a temperature often not much below boiling, for exhaust steam is also blown into the water of this tank.

Most of the office work in connection with Messrs. Allen & Hanburys' business is transacted at Plough Court. The two establishments are in telephonic communication, while a journey from one to the other need not occupy much over a quarter of an hour.

The Plough Court Business

was founded by Silvanus Bevan, who was admitted an apothecary in 1715, and who practised previously in Cheap-



PLOUGH COURT.

side. After the Great Fire the houses forming Plough Court were not rebuilt for some years, and there is good ground to

believe that the first occupant of one, or probably of both, of them was the father of Alexander Pope, and that here the poet was born in 1688. In what year Silvanus Bevan moved there is uncerain, but his brother and partner Timothy, when admitted an apothecary in 1736, is described as of Plough Court. Other Bevans appeared in the pharmacy business, and they married Heathcotes and Barclays and Gurneys. Then the business passed into the hands of Samuel Mildred and William Allen, who, on the retirement of Mr. Mildred, was joined (1797) by Luke Howard. William Allen married Charlotte Hanbury, and this led to the introduction of her nephews, Daniel Bell Hanbury and Cornelius Hanbury. When their day and generation had passed the business was carried on by their sons, Daniel and Cornelius. We need say nothing of the former—his memory is enshrined in the annals of British pharmacy as perhaps its brighest ornament. His cousin, Cornelius Hanbury, the present head of the firm, like his early predecessors, is a licentiate of the Apothecaries Company, and was for some years treasurer of the Pharmaceutical Society. It is he who, in association with his son, Frederick Janson Hanbury (the well-known botanist), has so widely extended the operations of the firm in the directions we have briefly indicated in this article; and these gentlemen are maintaining and extending their enterprises by constant personal attention to its management and conduct.

Medical Gleanings.

For Sick Headache.—Dr. Hammerschlag has had good results from powders each containing caffeine citrate, 1½ gr. phenacetin, 3 grains; and sugar, 1½ grain. A powder should be taken every two or three hours in a wafer capsule.

Phytosterin has been found in cod-liver oil by Mr. J. B. Nagelvoort, who reports the fact to the *Druggists' Bulletin*. Hitherto it has been known that cholesterin existed in the oil, and as it crystallises in rhombic plates, whereas phytosterin crystallises in needles, Salkowski suggested two years ago that, if cod-liver oil should be adulterated with vegetable oils (which contain only phytosterin), the fact could be determined by microscopic examination of this part of the oil separated by well-known methods. The point of Mr. Nagelvoort's communication is that this test is unreliable, but, as he only judges from the shape of the crystals, which were not sufficiently abundant for a determination of the melting-point, it seems desirable to wait corroboration of his discovery, even although his sample of oil happened to be pure.

Ear Troubles.

Dr. Mackenzie Johnston, of Edinburgh, speaks highly (*Edin. Med. Journ.*) of the use of papaïn in treating chronic suppuration of the middle ear. In such cases the pus collects, does not discharge freely, and cannot be removed thoroughly by syringing. Papaïn, in virtue of its digestive power, thoroughly cleanses the ear in those case. Dr. Johnston employs 15 minims of a 5-per-cent. solution of papaïn [preferably with 10 grs. of sodii bicarb. to the ounce], which is dropped into the ear, care being taken that it reaches the bottom of the meatus. If necessary the patient may be made to swallow while holding the nose, so as to draw the fluid into the middle ear. It is allowed to remain for one hour, after which the ear is syringed out with boracic lotion and carefully dried. This may be repeated as often as necessary.

Cooillana—A New Expectorant.

This bark, derived from a species of guarea, discovered in Bolivia in 1886 by Dr. H. H. Rusby, has been recommended by Dr. R. W. Wilcox as an expectorant. A concentrated tincture, given in doses varying from 3ss. to 3ij., in cases of acute and chronic bronchitis, was found to have a most satisfactory expectorant action. The effect is produced after from three to six hours, the expectoration becoming more watery and the cough easier. The drug appears to act by stimulating the muciparous glands, and Dr. Wilcox considers that it is to be preferred to ipecacuanha in that it does not readily cause nausea when given in doses sufficient to produce the expectorant effect.

Opium Alkaloids in Diabetes.

Experiments made by Dr. Mitchell Bruce some time ago show that acetate of morphine given subcutaneously to diabetic patients to the extent of 5 or 6 grains daily, proved to be more efficacious than 20 grains of phosphate of codeine. Narcotic effects from morphine seldom presented themselves so long as the sugar continued to fall.

For Excessive Perspiration of the Feet.

A powder is used in the Swiss army. It is composed of powdered talc, 10 parts, and alum, 2 parts. This is dusted on the soles of the feet frequently.

Dysmenorrhœa.

From observations made by Dr. John Waugh it would seem that antipyrin, in 10-grain doses every four hours, has a decidedly beneficial influence in relieving painful menstruation. It should be commenced when the symptoms of the period appear.

Salicin in Influenza.

Dr. T. J. Maclagan, the originator of the salicin treatment of acute rheumatism, gives notes in the *Lancet* of nine cases of influenza which he has treated successfully with salicin. Twenty to 40 grains were given every hour for three to six hours, then every two hours for a day; after that at wide intervals. In all the cure was rapid, the temperature falling to the normal, and convalescence commencing in all within twenty-four, and in most within twelve hours of the commencement of treatment. In none did any serious complication show itself, and in all recovery was rapid and lasting. Dr. Maclagan further suggests that salicin may be useful as a prophylactic. He is taking it himself, 20 grains three times a day, in that hope.

Antifebrin as a Hypnotic for Children.

Dr. John Gordon, of Aberdeen, who is at present engaged on an exhaustive study of the latter-day hypnotics, states (*Brit. Med. Journ.*) that antifebrin is an exceedingly safe and reliable hypnotic for children. He has noticed no evil effects from it. Its value is enhanced by the fact that it is comparatively tasteless, and also by the smallness of its dose, which is from 2 to 5 grains, depending of course on the age of the child. A useful way of prescribing it is to place the powder on the tongue either alone or mixed with a little powdered sugar.

Pleurisy in Children.

Dr. E. P. Davis, in the course of a chemical lecture on this subject at the Philadelphia Hospital, said in regard to treatment that the tepid pack, made by wringing some flannel out of tepid water, and wrapping it around the child gives relief, and exercises favourable influence upon the course of the disease. Antipyrin in small doses is the best sedative in most cases. As the disease goes on, if the effusion be serous, we may give diuretics, the simpler the better. The best is water in large amounts. The salts of potassium and sodium, especially the citrate of potassium, are of value. A good combination is digitalis, liquor ammonii acetatis, and sweet spirit of nitre; this acts both as a febrifuge and diuretic. The child should be kept quiet in a warm bed, and the temperature of the room should be regulated. The bowels should be kept open, and liquid food administered.

New Tænifuge.

The fruit of the *Cocos nucifera* has for a long time been employed as a vermifuge in all countries where this tree is cultivated. Dr. Martiallis has employed it in Senegal with good results, and numerous experiments have been made in France, which seem to prove that this substance has great activity as a tænicide. The principle in areca nut to which its activity as a tænicide is due is arecaline, $C_8H_{13}NO_2$, an oily liquid, strongly alkaline in its reaction, soluble in water, alcohol, ether, and chloroform. Its salts are very soluble, while all are crystalline, the hydrobromate being the most readily crystallised. It is suggested that the cocoanut may also contain this alkaloid, but this is a questionable conjecture.

General and Provincial News.

Fire at a Chemical Works.—On Tuesday morning, January 21, a fire broke out at Reeves's Chemical Works, Cleckheaton, resulting in damage to the amount of about 500*l*. The fire is supposed to have originated in the combustion of finished charcoal.

Lead-poisoning.—Dr. J. Brown, medical officer of health for the borough of Bacup, in a lecture on this subject, says that on filtering lead-polluted water through a large flower-pot, half-filled with sand-rock, fine gravel, and sand, the lead was removed from the water as perfectly as, and five times more rapidly than, by simple carbon filters.

The German aniline works which have acquired the patent rights for antipyrin are said to be profiting from the influenza epidemic, and the consequent increase in the demand for the remedy, to such an extent that they are likely to divide among their shareholders, in the shape of profit on the sale of antipyrin in excess of the quantity usually manufactured, the sum of 400,000m.

Some idea of the increased consumption of certain medicines in Russia during the recent influenza epidemic is shown by the following figures published by the *Pharmaceutische Handelsgesellschaft* in St. Petersburg. That organisation, which is really a large wholesale drug house, forwarded to its retail customers among the Russian pharmacists in the month of November, 1888, and in November, 1889:—

	Oz.		Oz.
Sulphate of quinine	2,470	against	6 185
Hydrochlorate of quinine	1,016	„	2,178
Antipyrin	1,223	„	2,490
Phenacetin	330	„	487
Antifebrin	870	„	1,840
	5,909	„	13,180

Hunting for a Chemist.—The *Globe* of Saturday last publishes a piteous story about "a lady of my acquaintance," who, on the previous Sunday morning, wanting some medicine for her sick daughter, drove to a well-known chemist in Regent Street. "It was then 9.30 A.M. She found every door closed and a notice on the window shutters 'Open at 11.' She then drove on to Moorgate Street to a chemist with whom she had previously dealt." Clever lady: she must have passed a dozen other pharmacies. "This place also was closed, and she saw a poor servant-girl, evidently on an errand of life or death, tearing at the bell and crying her heart out. My friend then returned to Regent Street at 11 and got what she wanted. In answer to her remonstrances the man merely said, 'Eleven is quite early enough to open on a Sunday.'" So the man had not the grace to grovel even! Why did not the lady threaten to carry her precious custom to the stores forthwith?

Sweet-toothed Rats.—On Tuesday last, January 21, His Honour Judge Hughes, Q.C., gave decision in the action of F. W. Place, chemist, Betley, *v.* the London and North-Western Railway Company, heard last week in the Crewe County Court. The action was to recover damages for two bags of sugar, which were partially eaten by rats while warehoused in the company's premises at Betley Road. The evidence showed that the company's premises were infested with rats, which was not denied. The defence raised by the company was that they had done all they possibly could to destroy the rats, but that they over-ran the premises when ferretting was being carried on at a neighbouring farm. The company contended, that if they were held liable for the damage, the plaintiff ought to have received the sugar and claimed for the portion that was damaged. Instead of that, he had refused to receive the goods, and they were returned to the company. His Honour held the railway company liable for the damage done to the sugar by the rats, but said the plaintiff ought to have received the sugar and claimed for the actual damage. He gave a verdict for the plaintiff for 10*s*. and the costs, and directed the railway company to deliver the two damaged bags of sugar to the plaintiff without further charge.

Laudanum as a Dye.—An inquest was held at Darlington on January 10 on the body of John Ridley, who died on the previous Tuesday through drinking laudanum. Early on that day the deceased threatened to take laudanum, but his wife, with the assistance of a friend, took the bottle from him and wasted the contents. She soon after ascertained from Mr. Wilson, a chemist, that deceased had obtained a second bottle of laudanum, and later in the day he was taken very ill. She at once obtained the assistance of Dr. Hern and some policemen who walked the deceased about until he died in their arms. The doctor saw him again later, and continued to call until Thursday afternoon. When her husband was taken upstairs the doctor said he was dead, but the heart was moving by the action of the poison. He remarked that the heart was still living, and said the same both on the first and second visit. He said the heart moved for hours after in cases of laudanum poison. She could not remember whether the doctor said that to her or to some other women. Her husband had been drinking since New Year's Day. He had many poisons in the house which he used in his trade. A juryman remarked that laudanum was used to dye rabbit skins. Mr. J. Wilson, chemist, Charles Street, said he supplied the deceased with laudanum, who said he wanted it for his rabbits, but soon after he returned to the shop and said he had broken the bottle and wasted the contents, and asked for another sixpennyworth, which was supplied to him. When Mrs. Ridley called he told her to inform the police. Dr. Hern said when he arrived deceased was unconscious, and had the appearance of having taken a large dose of laudanum. He gave him an emetic and applied the stomach pump, but it was evident that by that time the laudanum had been to some extent assimilated. On his second visit he thought the case hopeless, and at six o'clock in the evening on his third visit he found the deceased laid out as though dead, but he was in a state of profound coma. He breathed at the rate of about eight per minute, and the heart was to be heard distinctly beating slowly. The case was then absolutely hopeless, and he took no steps to restore animation. He visited the deceased twice on Wednesday, and he still breathed, but on Thursday morning he was dead. He made no statement as to the movement of the heart after death. There was no such thing as the heart moving after respiration had ceased. The Coroner said he thought the utmost that could be done was done for the deceased, and the Jury returned a verdict of "Death by poisoning during temporary insanity produced by drinking."

Dr. W. T. Briggs, M.R.C.V.S., of Darlington, writing to the *North Star*, and referring to the evidence of the medical attendant in the above case, criticises the attendant's action in the matter, and asks for "some further explanation" than was given at the inquest.

NEW COMPANIES.

The Minerals and Fuller's Earth Syndicate (Limited).—Capital of 2,000*l*., in 100*l*. shares. To purchase any mines, quarries, beds of fuller's earth, and other minerals situate in the United Kingdom. The first subscribers are:—J. Day, Spring Gardens, Bath; H. H. Garnett, 181 Sydney Place, Bath; A. G. M. Magar, Bath; A. J. King, Bath; C. W. Shickle, Bath; L. S. Cocking, Huddersfield; W. B. Hallett, 11 Queen Victoria Street.

Jesse Fisher & Son.—Capital, 10,000*l*. in 1*l*. shares Formed to carry on the trade or business of makers of chemicals of every description, and manufacturers of surgical instruments and appliances, adopting therefor an agreement of January 13, 1890, made with William Samuel Rothband, the particulars of which are not specified in articles of association. Subscribers are:—William Samuel Rothband, manufacturing chemist, 61 Elizabeth Street, Cheetham; Myer Kersh, clothier, 7 Dantzic Street; Leopold King, cigar manufacturer, 20 Thomas Street; A. Border, fancy goods dealer, same address; J. H. Bayley, accountant, 44 Kennedy Street; John Crompton, clerk, Robert Street, Chorlton-on-Medlock; and Thomas Ashton, cashier, 10 Buckingham Street, Moss Side, all of Manchester. William Samuel Rothband is to be first managing director, at a salary of 400*l*. per annum.

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Notes of Novelties.

NOVEL TOOTH-BRUSH.

A new tooth-brush is offered by Messrs. E. Bentley & Sons. Its peculiarity is a guard which is fixed upon the handle, and which being cup-shaped catches any water which trickles down the handle. This is a real improvement, and, as the brushes are in other respects well made and finished, they are likely to be inquired after.

THE OZONIC INHALER.

This is the name which Mr. William Martindale, of 10 New Cavendish Place, W., has given to his little apparatus for dry inhalation. The inhaler is in the form of an amber-glass bulb-tube, one end of which is shaped into a mouth-piece. The bulb is filled with an absorbent material in shavings, upon which the medicament is poured, and as it presents a large surface the air which is drawn through it becomes highly charged with the volatile substance. For instance, the one which comes to us is charged with a solution of menthol and camphor, one of the favourite influenza remedies, and this forms a pleasant and soothing inhalation. Mr. Martindale states in his medical circular that by the inhalation of the vapour of certain essential oils the respirations become more free, the depression and frontal headache produced by coryza are relieved, and the tracts and cavities are cleared from germs of disease and from adherent and blocking mucous expectoration.

NEW SPRAY PRODUCER.

Our "Town Traveller" referred in his Christmas notes to a new spray producer, the peculiarity of which is that it is made entirely of glass and metal. Messrs. E. Bentley & Sons, of 14 Tabernacle Street, send us one of these, and we are enabled to give an illustration of it. The force which produces the spray consists, it will be seen, of a small pump fixed to the top of the perfume globe. The piston of this pump rests upon a strong spring, so that when it is pushed down by the thumb no exertion is required to pull it up again. The piston has a metal washer, and cannot get out of order. The appearance of the spray producer is decidedly elegant, and in action it is quite as rapid and continuous as the ordinary double-ball apparatus. For Indian and export trade it is "a line" which we can recommend.

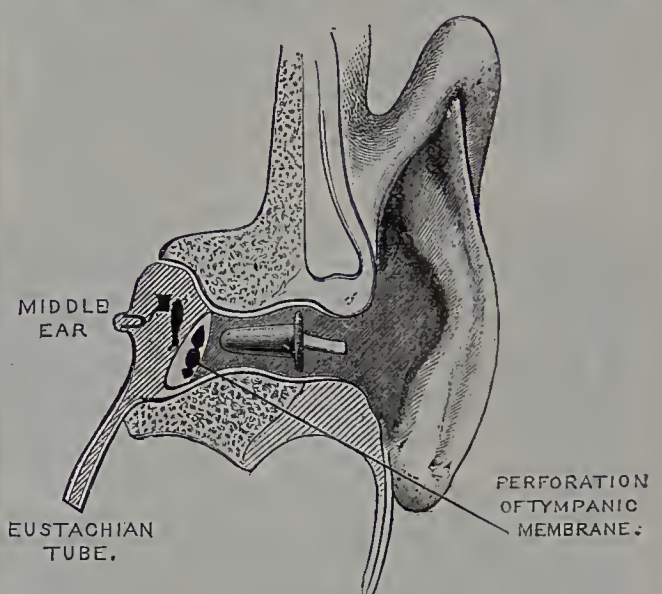


ARMBRECHT'S NOVELTIES.

The popularity of preparations of coca does not appear to be on the decrease. Messrs. Armbrecht, Nelson & Co., of Duke Street, Grosvenor Square, who have been so energetic in establishing the reputation of their coca wine, are now doing a useful thing by the introduction of a coca wine extract, five drops or more of which added to any wine produces a stimulating tonic of high power. The advantage of this preparation to travellers is apparent, and it carries with it the further recommendation that patients need not give up the use of any particular brand of wine which their physicians have ordered, since a few drops of the extract may be taken in the wine used in the ordinary course of dietary. The extract is put up in neat dropping bottles in a case, to retail at 3*s.* 6*d.* The same firm now make coca lozenges, two of which are equal in coca strength to a glass of coca wine. The lozenges are made with a fruit basis, are "crystallised" and not disagreeable to taste. They are put in strong boxes to retail at 1*s.* 6*d.* The prices are not marked in either case.

ARTIFICIAL EAR-DRUMS.

We are indebted to Messrs. Burroughs, Wellcome & Co. for some samples of the new antiseptic ear-drums, which for some time they have been making in large quantities. Perhaps there is no human infirmity, except it be colour-blindness, which is so common and distressing as deafness. Although due in a large percentage of cases the result of perforation of the typmanum, caused by careless picking, or by some violent atmospheric disturbance, there has never been any simple and easily applicable means of supplying the deficiency. We think, however, that that will no longer be the case since Dr. Ward Cousins has devised the tiny drums which Messrs. Burroughs, Wellcome & Co. manufacture.



These drums have the advantage over any others that we have seen in being exceedingly cheap; and being made of cotton wool, saturated with an antiseptic, they are quite light, and at the worst can take the place of the bit of cotton wool which most deaf persons wear. But we are able to say that they are distinctly serviceable to such persons. The drums are shaped like a little cone-topped hat, and are easily inserted into the position in the ear shown in the above figure. Dr. Ward Cousins states that he has tested the value of the new antiseptic membrane in more than one hundred cases of middle-ear disease, and, out of this number, all but three have experienced decided benefit. Other surgeons also speak of them in high terms, and cases have come under our own observation in which distinct relief was felt. Messrs. Burroughs, Wellcome & Co. have installed in their Dartford factory special machinery for making the drums, and they send out three dozen of them neatly packed in a box to retail at 1*s.* The cotton is skin-tinted in various shades, and there are three sizes. A small combination probe and nippers is supplied for inserting the drums into the ear.

EYE-LOTION BOTTLE.

The novelty shown in this engraving represents a bottle introduced by Messrs. H. Gilbertson & Son, in which to dispense eye lotions. It is made of green actinic glass, and the top of the stopper is in the form of the well-known eye-douche glass, so that, when the patient requires to use the lotion, all that has to be done is to pour a little of it into the douche-glass. The peculiar form of the stopper prevents, to a certain degree, mistaking the lotion bottle for a mixture bottle, and further error is guarded against by the fluted back and sides and the raised "Caution." The bottles are made in various sizes, and are a distinct acquisition which both dispensers and patients will appreciate. In referring to this firm's influenza remedy—Moscow salts—we did not note that the salts are sent out in various styles of bottles, both metal-capped and stoppered.



BRACES AND BANDAGES.

Mr. Vincent Wood, of Paternoster Square, is making some improvements in certain of the body appliances which he manufactures, which seem worthy of note. The Ladies' Acme Brace, which is shown in fig. 1, is a well-made article intended for the use of women who have discarded stays, and who yet desire to have some contrivance to support the back and hold the shoulders back. The "Paternoster" braces (fig. 2) are made with the same object, but are simpler. They are held by the arms, cross the shoulders, and buckle in front. They are made in three sizes and three qualities. The third sketch shows an improvement in suspensory bandages. In this the band is connected with the bag by buttons, and by this simple device adapts itself to the movements of the body instead of puckering up as was sometimes the case in bandages of the old sort. In these, too, the bag can be taken off for washing or new ones can be easily substituted.



Fig. 1.



Fig. 2.

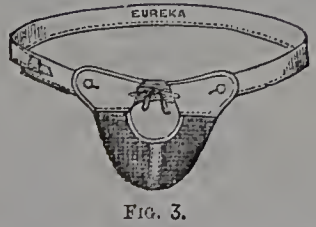


Fig. 3.

Professor Leslie Osborn, of Hamline University, reports to *Nature* that he has found a 10-per-cent. solution of common salt to keep anatomical specimens perfectly, without a trace of putrefaction.

OUR SUPPLEMENTS.

As usual at this time of the year we are favoured by a number of enterprising firms, who choose us as the distributors of their circulars to the trade. For all these we bespeak the careful attention of readers. We note them in alphabetical order.

Messrs. Burroughs, Wellcome & Co. greet the trade with two pretty cards. One is the picture of a charming young lady, who is testimony of the virtues of "lanoline preparations for the health and beauty of the skin and hair." The other card gives us a glimpse of Alpine woods and snow—the habitat of the *Pinus Pumilio*, from the leaves of which "pinol" is distilled.

The Dee Oil Company (Limited) explain the use of their "Oleum Declinæ" and "Salva Petrolia."

Messrs. Ellis, Compton & Co. offer to make themselves useful to chemists and druggists in the supply of colours, paints, &c. They also direct attention to an odourless disinfectant and a soluble ointment for cattle.

Messrs. Elliman, Sons & Co. publish a series of the clever horsey sketches by John Sturgess, which have made their advertisements so attractive of late. With these they make an announcement, which shows that they are still extending the boundaries of their business.

The Half-price Closed Letter Company (Limited) explain, in a circular which our subscribers in the United Kingdom will receive, the character and merits of the agency they offer to chemists.

Messrs. Hamilton & Co., of Wandsworth, give a price list of their "Pineotas" disinfecting preparations, and of the carbolic goods they prepare and supply.

Messrs. W. F. Hunt & Co. quote for their pleated paper bottle caps, now used in so many pharmacies.

Messrs. Newball & Mason illustrate effectively the production of their extract of herbs, wine, and other essences.

Mr. J. Pascall describes the virtues of his Golden Maltex, a sweetmeat containing 25 per cent. of its weight of extract of malt.

Messrs. A. & F. Pears attract attention by their newest advertising notion, a young man reading and a pair of spectacles to attach to the face. With this device the advertisement on the paper before him will find its own way to the minds of readers. Messrs. Pears also enclose reports of the business and of the press banquet to Mr. Barratt from this journal.

Mr. Arthur W. Shirley shows designs and quotes prices for his A 1 menthol cones, smelling bottles, and odorators.

Messrs. G. & G. Stern submit a seasonable card on the treatment of influenza by pumiline. This gives very concise directions, and retail prices. Chemists who wish supply of the cards for counter distribution should communicate with the firm.

Messrs. Thompson, Walters, Hole & Co. (Limited) place before the trade a well-illustrated and low-priced catalogue of feeding bottles, trusses, chest protectors, menthol cones, and other saleable sundries.

Messrs. Trent Brothers give illustrations and prices of air-tight show cases, shop fronts, &c.

Our foreign subscribers will also receive a circular from Messrs. Geo. Curling & Co., 30 St. Mary Axe, E.C., manufacturers of granular effervescent preparations and of gelatine capsules. A detailed price-list of these is included. Mr. J. L. Rosenkranz, of Dresden, also appeals to our foreign and colonial subscribers. His specialities include clinical thermometers, dispensing bottles, and thermo-safeguard feeding-bottles.

THE RAILWAY RATES INQUIRY.

ON Friday, at the Westminster Town Hall, Mr. Henry Oakley, general manager of the Great Northern Railway, Mr. Beale, solicitor of the Midland Railway, and Mr. Charles Scotter, general manager of the London and South Western Railway, were examined at considerable length before Lord Balfour of Burleigh, parliamentary secretary of the Board of Trade, and Mr. Courtenay Boyle, C.B., assistant secretary, railway department, as to the nature of the proposals of the carrying companies, in compliance with the Railway and Canal Traffic Act of 1888, for maximum rates and the classification of goods.

Mr. Beale, in reply to Mr. Poyser, who represents the chemical manure dealers and other traders, stated that chemical manures, phosphates, coprolites, &c., were included in Class C, which enumerated 204 articles. The charge proposed to be fixed as a maximum was 3*d.* per ton per mile. Nine articles were expressly excluded, but guano and rock phosphate, unground, were included in the 204, if not specially mentioned. They were comprised in the words "all other matters, articles and things, or all sorts of manures." From a comparative statement of the existing powers of the company in reference to rates and the proposed maximum rates for conveyance of goods exclusive of terminals, it would appear that the existing rate in Class C was 3*d.* The proposed rate was 2½*d.* per mile for the first ten miles; 2*d.* per mile for the next twenty miles; and 1½*d.* per mile for the remainder of the distance. The schedule showed that there would be an increase in the maximum powers over the actual rates for 10 miles of 5*d.*; namely, from 1*s.* 8*d.* to 2*s.* 1*d.*; for 20 miles there would also be a reduction of 5*d.*; for 40 miles the charge would be 6*s.* 8*d.*, or the same as the existing charge; for 50 miles 7*s.* 11*d.*, as against 8*s.* 4*d.*; 60 miles, 9*s.* 2*d.*, instead of 10*s.*; 70 miles 10*s.* 5*d.*, instead of 11*s.* 8*d.*; 80 miles 11*s.* 8*d.*, instead of 13*s.* 4*d.*; 100 miles 14*s.* 2*d.*, instead of 16*s.* 8*d.*; 120 miles 16*s.* 8*d.*, instead of 20*s.*; 140 miles 19*s.* 2*d.*, instead of 23*s.* 4*d.*; and for 160 miles 21*s.* 8*d.*, instead of 26*s.* 8*d.* It would thus be seen that, although there was a trifling increase in regard to very short distances, there was a substantial reduction in the case of long distances.

Lord Balfour of Burleigh stated that he had received a memorial from the wholesale druggists, containing a variety of objections to the proposed schedules of the railway companies, and to the form in which they had been handed in by Sir H. James on behalf of the associated companies. In one instance ten different articles were dealt with in reference to glycerine, which was alleged to be carried in large quantities; but having carefully examined the objections contained in the memorial, he failed to see that they gave any additional information to the court beyond that which was supplied by the objections previously handed in by the traders. It was hardly worth while, he thought, to circulate the memorial.

Mr. Balfour Browne, Q.C., said he represented the chemists and wholesale druggists, and he believed that the objections entertained to the proposed schedules by those bodies were fully set out in their original table of objections. He believed that the only object of the memorial was to show how far the objections had been met by the railway companies in their revised schedules.

Mr. Birt, goods manager of the Great Eastern Railway, in the course of a long examination stated that the Great Eastern Act of 1862 enacted that "all sorts of manures" were to be carried at 1½*d.* per ton per mile, and for coprolites, ground bones, manure and other chemical manures 2*d.* per ton per mile. The maximum rates now proposed involved an increase in the case of ordinary manures from 1½*d.* per ton per mile for 10 miles; 1*d.* for 20 miles; ¾*d.* for 40 miles, and ½*d.* over 40 miles, to 2½*d.* per ton per mile for chemical manures for 10 miles; 2*d.* for 20 miles; 1½*d.* for 40 miles; and 1*d.* for distances over 40 miles. He thought the contention that the two classes of manures should be charged alike was an unreasonable one, seeing that the value of the article delivered was estimated in the one case at about 2*s.* per ton, or even less, while in the second it varied from 25*s.* per ton to 10*l.* 10*s.* The prices of one firm at Ipswich were as high as 13*l.* per ton. In the early days of the manufacture of chemical manures, about 1843, they were made entirely from ground bones and coprolites, with vitriol and other chemical mixtures added to them. During the last fifteen years rock phosphates from France, Belgium, Spain and America had largely taken the place of coprolites, which had become scarce, and therefore more costly to raise. Many of the commoner sorts of chemical manures now contained about 50 per cent of the various kinds of rock phosphates or coprolites, and a small percentage of ground bones, while the better class contained more bones, and only from 10 to 12 per cent. of the various kinds of phosphates and coprolites. Many other articles were also used in the manufacture of chemical manures, such as ammonia, guano, vitriol, dried blood, and even shoddy. Other descriptions of chemical manures now in use were called kainit, the value of which was 3*l.* per ton; superphosphates valued from 3*l.* 5*s.* to 5*l.* 10*s.* per ton, and gypsum valued at 1*l.* 5*s.* per ton. Messrs. Packhard of Ipswich, who were large manufacturers of chemical manures, had presented objections to the rates proposed by the Great Eastern Company, but the company were doing all in their power to meet the requirements of the traders generally. Their object was to encourage the traders, and not to discourage them by fixing prohibitive rates.

TRADE-MARKS APPLIED FOR.

THE *Trade Marks Journal* publishes the following notice:—"Any person who has good grounds of objection to the registration of any of the following marks may, at any time within one month of the date of this journal, give notice in duplicate, at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1883, of opposition to such registration." All communications to be addressed to H. Reader Lack, Esq., Comptroller General, at the Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C.

From the "Trade Marks Journal," January 22, 1890.

Oriental design with two symbolical figures; also sketch of two foreign birds; also several female figures in Oriental costume; also sketch of Arabian horse with accoutrements; for chemical substances, and for vegetable, animal, and mineral substances. By the Actien-Gesellschaft für Anilin Fabrikation an der Treptower Brücke, Berlin. 93,158, 93,934, 93,939, 93,940, 93,944, 93,948, 93,967, 93,968, 93,975, 93,976.

"SHAMROCK"; for a sanitary soap. By A. Finlay, Ann Street, Belfast. 92,340.

"TYLER'S AMYGDALINE LOTION," and other wording on square label; for a lotion for human use. By F. A. Purcell, trading as Tyler & Co., 9 High Street, Marylebone, W. 79,555.

PECTORAL "CHERRYDYNE"; for a medicinal preparation. By E. A. Woodhouse, trading as E. A. Woodhouse & Co., 103 Cleethorpes Road, Grimsby. 93,309.

CYMRU FYDD; for chemical substances used in medicine and pharmacy. By M. I. Jones, Aberamen, Aberdare. 93,750.

"PAPIER SÈNYOL"; for a cure for corns and enlarged toe joints, &c. By J. T. Hall, trading as Gilbert & Hall, 15 Commercial Road, Bournemouth. 93,835.

"GOLDEN NUGGET"; for food substances. By Rolfes, Nebel & Co., 69 & 70 Mark Lane, London. 93,691.

HONEYCA; for all kinds of food stuffs. By J. Trantom, 11 and 13 Cheapside, Liverpool. 93,702.

Sketch of the Eiffel Tower, with wording; for mineral and aërated waters. By M. J. Murphey, Waterford. 92,819.

"GOLDEN NUGGET"; for mineral and aërated waters. By Rolfes, Nebel & Co., 69 & 70, Mark Lane, London. 93,692.

"COMPRESSED LATHER"; for soap included in class 47 and scented soap; and "GO-A-HEAD" for common soap, &c. By Gardner, Phillips & Co., Avonside Soap Works, Feeder Road, Bristol. 90,995, 90,996, 92,199.

THE PRESCRIPTION:

Abstract of a Lecture delivered by Professor Joseph P. Remington to the New York College of Pharmacy.

THE author was invited by the committee of the New York College to appear before them in his capacity as a ecturer, and he responded to the invitation with his discourse on "The Prescription." There was a large and influential audience present, and interest was added to the discourse by photographic facsimiles of many of the prescriptions being shown by aid of a magic-lantern. At the outset the lecturer had something to say in regard to

Scientific Knowledge Applied to Dispensing.

There is scarcely a single branch of science which students of pharmacy are required to study which would not be found useful during some period of the career of a dispensing pharmacist. If the student possesses an accurate knowledge of the materia medica, of the doses and properties of drugs, and of the means of identifying them, he has the foundation laid for being a safe dispenser in this respect. If his knowledge of chemistry extends only to an acquaintance with the properties and means of identifying chemicals, he will frequently be found wanting; for he must have, in addition, an accurate knowledge of the laws of chemical combination and of the principles that govern decomposition. When a precipitate makes its appearance in a mixture which the physician intended to be transparent, he should be able to instantly divine the cause and apply the remedy; and if two apparently harmless substances are directed to be dispensed in solution which are liable to subsequently develop poisonous properties, he must know exactly how to avoid a catastrophe. He must also be able to determine the purity of drugs, and this implies that theoretical studies must be backed by laboratory work in synthesis and analysis.

Dispensing a Development of Knowledge.

In the next portion of his lecture Professor Remington showed how the kind of knowledge which he had been speaking about does actually apply to dispensing, and he did this by commenting on a selection of prescriptions, compounding them in presence of the audience when practicable. The first prescription which he spoke about was one composed of potassium bromide, 6 drachms, and peppermint water, to 2 oz. This served to illustrate the fact that some solids when dissolved in water already containing a substance throws that substance out of solution. This mixture becomes opalescent, owing to oil of peppermint being thrown out by the bromide, as well as owing to the low temperature produced by solution of the solid in water. Professor Remington advised his hearers to allow the mixture to stand until it has acquired the temperature of the room and then filter it; or a perfectly clear solution may be obtained by adding a little purified talc to the liquid in the filter. In his next example, a mixture containing potassium iodide and syrup of ferrous iodide, a greenish-blue precipitate of ferrous carbonate was formed, because the potash salt contained a trace of carbonate, as most commercial samples do. For an analogous reason, Fowler's solution of arsenic and syrup of iodide of iron are incompatible, and they should never be prescribed together, and never dispensed in combination without placing a "shake well" label on the bottle. Ferrous carbonate is also precipitated in this case, but Professor Remington is of the opinion that arsenic too is precipitated, and on that ground he orders the "shake" label. The next prescription which was brought before the meeting was this:—

Sodii salicyl.	gr. xxx.
Spt. æth. nit.	min. xxx.
Aquæ	℥ij.

If the sodium salicylate is neutral, and the spirit of nitrous ether acid, decomposition ensues, salicylic acid is thrown out of solution, and discoloration is apt to occur subsequently. If the acidity is neutralised by the use of a little solution of soda, a permanent solution is easily effected. To this comment of Professor Remington's we may add that even although the mixture is absolutely colourless at first it gradually is changed to a dark-red solution. The prescription was the subject of an investigation by Mr. A. W. Gerrard several years ago. It is supposed that a coloured nitro-compound of salicylic acid is formed.

Mixtures Containing Alkaloids.

A large portion of the lecture was devoted to an exposition of the general principles in regard to the action of various chemical agents upon alkaloids. Incidentally reference was made to mixtures containing quinine sulphate and mercuric chloride and potassium iodide, as well as those containing extract of liquorice and dilute sulphuric acid. These matters are very fully treated in "The Art of Dispensing," and need not be further referred to here. But, says Professor Remington, a skilful general will often try to defeat his enemy by dividing his forces, so the dispenser can often prevent precipitation by keeping the powerful remedies from coming together in their full strength, and so he resorts to dilution, the intermediaries often proving sufficient to keep the contending forces from clashing. This may be illustrated by the following:—

Hydrarg. bichlor.	gr. j.
Strychninæ sulph.	gr. ss.
Syr. aurant. flor.	℥ij.
Aquæ ad	℥iv.

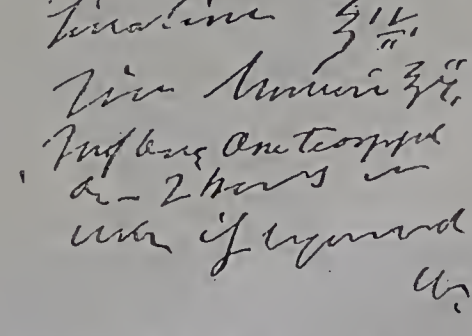
If the mercuric chloride and strychnine sulphate are dissolved separately in the liquids and the two solvents mixed, precipitation may be avoided or retarded, and when in the press of business there may be some uncertainty in the dispenser's mind whether precipitation may not ultimately occur, although the solution may be clear at the time, it is always safest to place a "shake well" label upon the bottle.

Unexpected Development of Colours

in prescriptions is attended oftentimes with annoying complications; mixtures of tincture of guaiacum with spirit of nitrous ether or other oxidising agents develop a bluish or greenish colour, which is apt to suggest to the patient's mind the accidental admixture of copper; sometimes the colour is not produced at once, but appears in the course of an hour or two after the prescription has been compounded. When such a difficulty is anticipated it is best to prepare the patient for a possible change in the colour, when the prescription is delivered, by stating that it *may* occur; the only difficulty about this being that the patient may return the next day, in the event of no change taking place, and demand an explanation. Such situations call for tact and judgment.

Some Autograph Prescriptions.

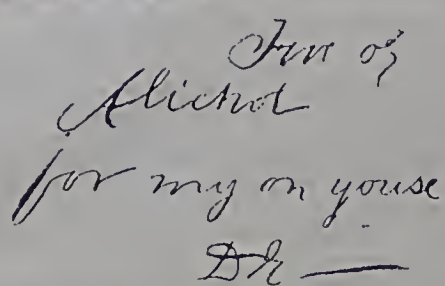
At this point the lecturer called in the aid of the magic-lantern to illustrate his subject, and amongst the first prescriptions which were thrown upon the screen was this hard nut, which, with the rest, we reproduce from the *Druggists' Circular*:—



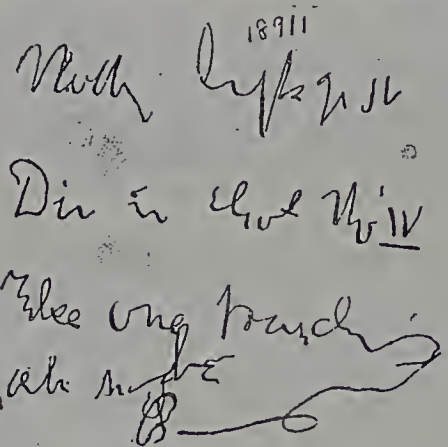
Probably lanoline will be the thing that most dispensers will put down as the first item at first sight; but that and "vin. mariani" would not be a very pleasant draught, even in one-teaspoonful doses. "Terraline" was the thing required. It is a proprietary preparation, and being so, Professor Remington had something to say about the "unfortunate fact that pharmacists are compelled to keep proprietary articles to use in physicians' prescriptions."

Judging from this lecture alone, we cannot help coming

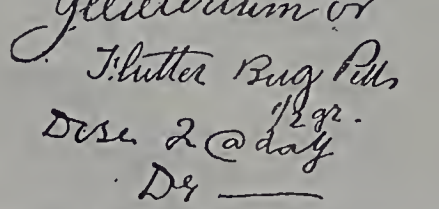
to the conclusion that a more liberal interpretation is put on the word "prescription" in the States than we give it here. For example, here is a "prescription" which the lecturer tells us "was written by a physician whose early education had been somewhat neglected":—



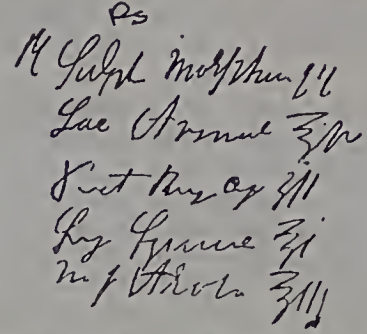
Perhaps the lecturer knew the writer, and has called him "physician" advisedly, for he disarms suspicion by telling us that the alcohol "was probably needed for burning in a lamp for a steam atomiser or some equally laudable purpose." We take Professor Remington's word for it, but otherwise we should have placed the writer in the same category as the "physician out of condition," who wrote the following:—



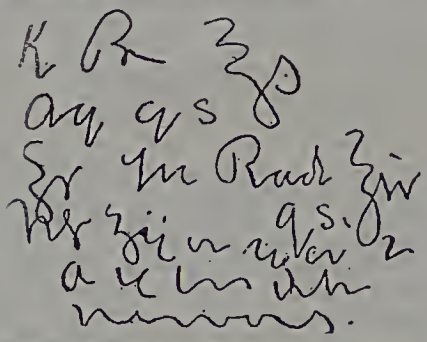
The bibulous prescriber presented the prescription personally, but he was fortunately accompanied by a friend who successfully protected him from himself and his heroic doses. The prescription reads:—Sulphate of morphine, 4 grains; divide in four powders, take one powder at night. He did not get it. Still another example of the American "physician's" accomplishments. It happened to be the last example which Professor Remington submitted, with the remark, "Illiteracy, combined with an irresistible sense of humour (which, withal, seems out of place in a prescription), is exhibited" in the following:—



Continuing, the lecturer said:—"The memory of the illustrious Dr. Clutterbuck is compelled to suffer under the degrading title of 'Flutter hug,' and who would recognise elaterium in its disguise? And yet this is the prescription of a physician in extensive practice in an interior town in one of our most flourishing commonwealths." There is abounding proof in these examples of the assertion (made by Professor Remington) that "some physicians succeed in building up large practices notwithstanding their inability to master the 'Queen's English,' to say nothing of her Latin." The other examples which we cull from the lecture are evidently the productions of men who may fairly be called legitimate physicians. The lecturer did not give the name of the writer of the following, but we take it that he is well known, and that his handwriting is familiar in America:—

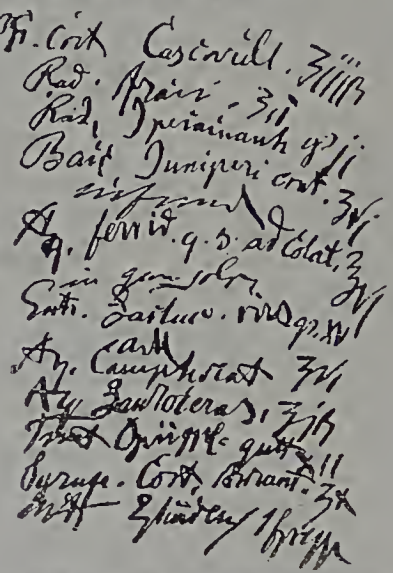


It appears that this is intended for 1 grain of sulphate of morphine, ½ oz. of milk of ammoniac, 2 drachms of compound tincture of benzoin, 1 oz. syrup of squill, 3 oz. of mucilage of gum arabic. Our American colleagues are not unfamiliar with the prescriptions of men who retain the student days' notion of chemical symbols:—



The rendering of this is:—1 oz. of potassium bromide is to be dissolved in sufficient water, and enough syrup of liquorice root is to be added to make 4 oz. Two teaspoonfuls in water every two or four hours when nervous.

A heavy hand, a small piece of paper, an involved style, and an inability to abbreviate successfully are responsible for the last facsimile which we give:—



The translation is 3½ drams of cascarilla bark, 2 drams of asarum root, 2 grains of ipecac root and 6 drams of bruised juniper berries are to be infused with sufficient hot water to make the strained infusion measure 6 oz., in which are to be dissolved 15 grains of extract of lactucarium; it is then to be mixed with 6 drams of camphor water, 1½ dram of cherry laurel water, 12 drops of simple tincture of opium and 10 drams of syrup of orange peel; a tablespoonful every three hours.

The Peroration of the Lecture

was devoted to some fine thoughts regarding the duties which the pharmacist owes to the physician and the public

in handling prescriptions. Tact, judgment, and skill must be acquired and diligently used, and if, through harassing interruptions and annoyances that are always aggravating, the physician makes an error or omission in writing the prescription, let the first aim of the pharmacist be to rectify it without prejudice, guarding the physician's reputation as he would his own, remembering that to even the best of men moments come when fatal lapses will creep in; and of course the physician should return the compliment.

The pharmacist's position in relation to the prescription is this—that even in the earlier history of the world, when civilisation was struggling with barbarism, the art of the apothecary was known, but the modern prescription represents the doctrine of evolution; and the duties of prescribing and dispensing have long been regarded as separate and distinct. Notwithstanding the teachings of some who still prefer to practise both medicine and pharmacy, it must be apparent to all that the successful pursuit of either profession must alone furnish sufficient occupation to claim the undivided energies of the most active intellect.

That this view has found favour with intelligent people all over the continent needs no argument, and the doctrine that "the only proper person to practise pharmacy is the pharmacist" will unquestionably be sustained by an overwhelming majority of the community, and it should form the chief corner-stone of every pharmacy law throughout the length and breadth of our land.

These are sentiments which will find favour with British Pharmacists, who at present are looking forward to some legislative recognition of their special training as dispensers.

SIR J. LISTER'S NEW DRESSING.

WE have already mentioned that Sir J. Lister has in the preparation of his new dressing given up starch for gentian violet, the latter being the better fixer of the double cyanide. Since his second paper was read, he has been mortified to find that some gauze charged by aid of gentian violet dusted to a very inconvenient degree. This appeared to be due to the bichloride of mercury, which interferes, to a certain extent, with the precipitation of the gentian violet. He has found that there are several colouring-matters which answer the purpose fairly well. Thus both carmine and prussian blue attach the cyanide to a cotton fabric perfectly so long as it is moist, but when it is thoroughly dry they are not very good as regards the question of dusting. The dye which complies best with all the requisite conditions is hæmatoxylin. The manner in which he has found it best to use this substance is as follows:—It is incomparably better to apply it to the freshly-precipitated and wet cyanide than to mix it with the salt after its particles have been aggregated in the process of drying. The moist precipitate is thoroughly diffused with pestle and mortar in distilled water (6 oz. for every 100 grs. of potassium cyanide), containing in solution 1 part of hæmatoxylin for every 100 parts of the cyanide. The cyanide salt, while it precipitates the hæmatoxylin, changes its colour to a pale-bluish tint. This is advantageously enhanced by the addition of a little ammonia to the mixture, in the proportion of 1 molecule of ammonia ($NH_3 = 17$) to one of hæmatoxylin ($C_{16}H_{11}O_6 3H_2O = 356$). More than this proves prejudicial. The ammonia is added in a dilute form, and it is convenient to have the dilution such that 1 fluid drachm of the ammoniacal liquid shall correspond to 1 grain of hæmatoxylin. The dye is further economised by allowing the ammoniated mixture to stand for three or four hours and stirring it occasionally, so that the ingredients may react thoroughly upon each other. If the mixture is filtered immediately there is considerable loss of colouring-matter. The dyed salt having been drained and dried at a moderate heat is levigated, and may then be kept for any length of time fit for use. When employed for charging a dressing, it is diffused by means of pestle and mortar in solution of bichloride of mercury (1 to 4,000) in sufficient abundance to drench the fabric thoroughly, for which 4 imperial pints to 100 grs. of the salt will be found adequate. This will give a percentage of between 2 and 3 of the cyanide to the dry gauze.

PHOTOGRAPHIC NOTES.

(*Written for* THE CHEMIST AND DRUGGIST.)

MICROPHOTOGRAPHY.

AN application received from a medical man in a country town has suggested another channel into which the practical chemist may well steer his bark with the certainty of a good haul of profit. Our correspondent's application was for assistance in obtaining photographs of the microscope slides of a case of scirrhous cancer. Although two chemists had been applied to for information they were unable to render more help than the suggestion that "some photographer would most likely do it." All the photographers applied to had no idea of how to set about it, so in despair help was sought at headquarters. Many chemists know how to handle a microscope, and some amongst them know how to take a photograph. Why not combine the two? Those who are familiar with the first should learn the necessary rudiments of the second. Microphotography is an extremely easy as well as an extremely difficult subject. Nothing is easier surely than to focus the object and insert a dry plate in the place of the eye, and give the necessary exposure, and develop. With that the thing is done. Easy though this is when working with low powers, such as 1, $\frac{1}{2}$, or $\frac{1}{4}$ inch, when one comes to $\frac{1}{10}$ and $\frac{1}{16}$ inch we may try to focus the slide for over an hour so as to get the best effect, and then find on developing the exposed plate—which, by-the-by, sometimes takes five hours—that the whole thing is out of focus, simply because a change of perhaps 5 to 10 degrees of temperature has taken place. Such work as this is heart-breaking; but for chemists, what would be easier than to make photographs of wood sections, urinary deposits, &c., for which powers rarely beyond $\frac{1}{4}$ inch are employed? Microphotography is now taking rather a prominent position, and chemists should be alive to this fact and keep the necessary little adjuncts in stock, such as plain glass focussing screens, ruled with transverse lines, which can be made by copying a sheet of ruled paper, horizontally and vertically, and utilising this negative to obtain transparencies from. Microscopic glasses, rings, covers, Canada balsam, the various staining and preparing fluids, all of which will bear a good profit, should also be kept in stock. Our notes are intended to be on photography, not on microscopy; but as the two are combined by amateur workers, so should the chemist combine the two. In a future article we will give the salient points which should be observed in selecting a microscope for microphotographic work.

EIKONOGEN

still attracts a good deal of favourable notice. It is stated to be, chemically, the sodic mono-sulphate of amido-naphthol, and has the formula $C_{10}H_{15}(NaSO_3NH_2HO)$. Messrs. Hopkins & Williams are introducing a new substance, "Anglol, an English developer discovered and manufactured in England." This leads one to note that but few discoveries are made in England in the minor matters of photography, Germany, France, and America all standing in front of England, though we can claim the discovery of eikonogen by Professor Meldola, but not as a photographic reducing agent. In Germany there are one or two of the most famous schools of photography, and in Vienna, under the charge of Dr. Eder, is the most elaborate school for every branch, not only of chemistry, but even optics, physics, and photo-mechanical printing methods, which are in any way dependent on photography. This is a state-subsidised school, in character somewhat like our Normal School of Mines, though there is less red-tapeism and more practical work. It enables its pupils and professors to devote time, money, and material in the prosecution of research and experiment necessary to sift to the bottom, or to get as near as possible to, the fundamental truths which underlie all the various processes of photography. We say, "as near as is possible," for at present we cannot definitely state what does occur, chemically or physically, in half the operations of photography; and there is a fine field of research for any chemist with a few spare moments, in the determination of the chemical changes which occur in the action of light on the salts of silver.

Pyrocatechin or Benzcatechin.

In our article upon hydroquinone or quinol we mentioned pyrocatechin, sometimes called benzcatechin, and resorcin, its isomers, and stated that but poor results had been obtained with them when used as developing agents. Now, however, Dr. Carl Arnold gives in the *Photographische Mittheilungen* the results of his experiments with pyrocatechin, and states that it possesses a developing power which is as 15 to 1 as compared with quinol; and therefore, although the price is somewhat high, 1 mark (or 11¾*d.* English) for 1 gramme (15·5 grains English), it is much cheaper than any other developer. The further advantages are that the negatives are an excellent colour, almost perfect freedom from fog, the plates when placed in the developer become insensitive to light, cold has little or no effect in slowing development, there is great latitude in exposure, and no stain either for hands or plates. The following formula is recommended :—

Solution A.

	Parts
Pyrocatechin	1
Distilled water	100

Solution B.

	Parts
Carbonate of potash	20
Distilled water	100

The Developer.

	Parts
Solution A.	1
„ B.	5 to 10
Water (ordinary)	60 to 80

This is sufficient for a whole plate.

For instantaneous work increase solution A, in above formula, to 5 parts. Carbonate of soda may be used instead of the potash salt.

Spring Cleaning.

Soon, in the bright days of the next month, will the cameras which have lain by for some little time be taken up and overhauled, and little defects and damages will have to be made good. One of the first things we do is to rack the camera out to its fullest length and brush the whole of the inside of the bellows well, and then give everything a coat of *dead-black varnish*, made by dissolving 1 oz. of shellac in 8 oz. of methylated spirit, and adding, *sec. art.*, finely-sifted lamp-black, 2 oz. This is applied also to the inside of dark slides, and the edges of the slide are just rubbed with a little black-lead to make them work easy. The insides of lens-tubes are also examined, and blacked where necessary, and the stops or diaphragms are reblackened by being first scoured with fine sand-paper, polished with emery, then with a chamois leather just moistened with dilute sulphuric acid, and the following solutions, mixed in equal parts, applied with a camels'-hair brush :—

A	Nitrate of silver	20 grains
	Water	1 drachm
B	Nitrate of copper	20 grains
	Water	1 drachm

After the stops have been evenly coated with this mixture they must be heated in a Bunsen burner, being held by the tongue with a pair of forceps. The following has also been recommended, but we have been unable to obtain good results with it :—

Arsenious acid	120 grains
Hydrochloric acid	½ oz.
Sulphuric acid	¼ „
Water	20 „

To blacken zinc, the best method is to clean the metal, first with fine sand and hydrochloric acid, wash thoroughly, and immerse in

Chlorate of potash	1 oz.
Sulphuric acid	1 „
Water	5 „

A fine velvety black is immediately formed, and the metal should be then rinsed in water and allowed to dry, and flowed over with a solution of asphalte in benzine, and then allowed to dry.

A New Lens.

From America comes the report of a new lens made by Mr. Alvan Clark, the great astronomical objective maker, which, if report speaks true, is likely to cause a great revolution in practical photographic optics. There are three great types of lenses—first, the portrait, which was invented by the famous mathematician Petzval, which consists of a front and back combination, the former being a convex crown cemented to a double concave flint-glass, the posterior combination being a flint meniscus slightly separated from a double convex crown glass lens. This type of lens works usually at an aperture of F/4; that is, the diameter of the glass is one-fourth of its focus. The second class is the rapid rectilinear, which may be considered to be two similar combinations, each composed of a concave crown meniscus cemented to a convex flint meniscus; this works at F/8. The third type is the single or landscape lens, which practically may be considered one of the combinations of the rectilinear. Increased optical knowledge has increased for special purposes the aperture of the first type to F/2·5; the second type has been increased in aperture to F/6, F/5·6, and by two opticians to F/4; the third type to F/7. The second type, the rectilinear, and the one most generally used, was considered rapid at F/6; but F/4 was a still greater gain. Now Mr. Alvan Clark has made his lens to work at F/3, or the glass one-third of the focus. Mr. Clark's new lens is totally dissimilar to anything yet made, as the lenses, though of the second type, embrace an angle of 100 degrees, whereas the ordinary lens of that class only includes an angle of 50 to 60 degrees. The lens works at full aperture, and is almost free from spherical aberration, and covers the plates perfectly. Another peculiarity is that each lens is uncemented and separately mounted. Should this lens be placed on the market we can promise a big rush for it.

Photographic Advertisements.

Besides being a profitable adjunct to a chemist's business, photography may well be made useful for various advertisements which are at once striking and novel. Thus, good prints of local views and objects of interest may be mounted on large gold bevelled-edge mounts, and the advertisement either painted on in the ordinary manner, or may be actually printed on the photographic print itself by a little manipulation; but this could only be done by those who are themselves practical workers. Opals, transparencies, and, indeed, every positive process may be utilised. To effect the combination of a view and advertisement it is first necessary to get some printer to strike off one or two copies in good bold black letters, and this should then be photographed on a plate the same size as the picture. A good negative having been taken, in which the letters appear as clear glass on an absolutely opaque ground, it is only necessary to use a printing-frame large enough to take the two negatives, and the rest becomes easy. We will take, for instance, a view of a jubilee clock-tower, or, say, an instantaneous view of the principal street of the town. We may perhaps add that the larger this negative is the more effective the whole will be. Thus, with a half-plate negative, $6\frac{1}{2} \times 4\frac{3}{4}$ inches, suppose we desire to advertise some special preparation. The advertisement should be brief and not too much crowded together, and should be set up by the printer on a half-sheet of demy. This should then be photographed on a half-plate, and this negative, with the other placed side by side, is to be placed in a printing-frame, together with a mask cut out of stout brown paper, so as to cover each negative for about a quarter of an inch all the way round. Next the sensitive paper (either the ordinary albuminised or mat-surfaced paper may be used) should be laid on the two negatives, and exposed to light in the ordinary way. The printing should be carried to a great depth, so as to obtain rich-toned prints, and when considered deep enough the entire print should be toned and fixed as usual. When finished, the result will be most novel and striking, and, speaking from personal experience, decidedly effective. As a variation we suggest the use of the so-called ferro-prussiate paper, which yields bright-blue prints. The carbon process will give prints in any colour from red chalk (crayon) to black. The cost of these advertisements is not very great. Thus, two half-plates cost 6*d.*; paper, 6*d.*; mount, 2*d.*; totalling 1*s.* 2*d.* for the prime cost; whilst any number of similar ones can be produced for 8*d.*

Practical Notes and Formulæ.

Headache Drops.

Castor, gentian, and valerian, bruised, ¼ oz. each; laudanum, 1 oz.; sulphuric ether, 1½ oz.; alcohol, 8 oz.; water, 8 oz. Put all into a bottle and let stand about ten days. Dose, a teaspoonful as often as required, or two or three times daily.—*New Idea.*

Rheumatic Liniment.

Olive Oil, spirit of camphor, and chloroform, of each 2 oz.; oil of sassafras, 1 oz. First add the oil of sassafras to the olive oil, then the spirit of camphor, and shake well before putting in the chloroform, shaking when used, and keeping it corked. Apply three or four times daily, rubbing it in well, and always towards the body.—*New Idea.*

Labelling Ointment-boxes.

It is an ordinary experience to have the labels come off the boxes within a very short time. This is due to the tops of the boxes being cut across the grain and consequently very porous, which will cause them to soak up all the paste, leaving the labels quite dry. Years ago some one proposed an easy remedy, which is to soak the tops of the boxes with paste previously to attaching the labels.—*Pharl. Record.*

Green Mountain Salve.

Resin, 5 lbs.; burgundy pitch, beeswax, and mutton-tallow, of each 4 oz.; oil of hemlock, Canada balsam, oil of origanum, oil of red cedar, and Venice turpentine, of each, 1 oz.; oil of wormwood, ½ oz.; verdigris, very finely pulverised, 1 oz.; melt the first three articles together and add the oils, having rubbed the verdigris up with a little of the oils and put in with the other articles, stirring well; then pour into cold water and work as wax until cool enough to roll.—*New Idea.*

Absinthe.

Oil of anise	6 grammes
„ star anise	4 „
„ wormwood	2 „
„ coriander	2 „
„ fennel	2 „
„ peppermint	1 gramme
„ hyssop	1 „
„ angelica	1 „
„ melissa	1 „
Proof spirit	1 litre

Dissolve, and colour green with either fresh parsley or nettle leaves.

Manufacture of Benzoic Acid.

Starting proposes (*Arch. Pharm.*) that this acid should be made in the following manner on the small scale:—The subliming vessel is a copper or brass pan, 3 inches in diameter and 2 inches deep, which is carefully fitted into the bottom of a wooden box, 2¾ feet long by 1 foot wide and 1 foot deep, either smoothly planed inside or lined with glazed paper. The lid and joints of the box are made tight from the outside. A disc of pasteboard is hung two or three inches above the pan to prevent the sublimate from falling back into it. The pan is charged with 35 grammes of powdered gum benzoin, and heated for about four hours by means of a small spirit-lamp. The pan is charged a dozen times or more before the box requires emptying. The acid obtained shows only the faintest trace of yellow colour.

Cough Syrup.

The following is said to be an excellent remedy for convulsive coughs:—

	Parts
Sodium benzoate	5
Peppermint water	40
Distilled water	40
Syrup of orange-peel	10

Mix.

Dose: A teaspoonful may be taken whenever necessary.

—*National Druggist.*

Dr. Harlan's Tooth-paste.

Precipitated chalk	3ij.
Powdered orris	3ij.
„ Castile soap (white)	3ss.
„ cuttle-fish bone	3ij.
„ myrrh	5j.
„ white sugar	3j.
„ borax	3j.
Carmine	gr. x.
Oil of wintergreen	3j.
Glycerine	3j.
Honey	3j.

Well mix, after dissolving the carmine in a little water alkalinised by a little borax.

Transparent Brilliantine Pomade.

Melt together on a water-bath 200 grammes of suet and 120 grammes of clear amber resin; while liquid and at a temperature of about 80° C. add to the resinous fat a solution of 150 grammes of caustic soda (40°) in 300 grammes of rectified spirit. Use a vessel for holding these ingredients which will enable them to be boiled. Heat the contents of the vessel until saponification is complete, and a transparent soap has formed. Meanwhile melt in a separate vessel 4 kilos. of vaseline in 5 kilos. of castor oil by the heat of a water-bath. Add by portions 590 grammes of the transparent soap mass, and 3 kilos. of rectified spirit. Heat the whole until bubbles rise to the surface, then pour out, colour with gamboge, and perfume with 100 grammes of oil of sweet orange or any other perfume.

Vaseline Pomades.

In the following formulæ the fatty basis consists of 3 parts of white vaseline and 1 part of cerasin (purified mineral wax). These substances should be melted together, and placed in a warm porcelain vessel, the colouring matter added, and the whole diligently stirred until the mixture is of the consistence of thick cream; then add the perfumes, and pour into pots or bottles:—

Pommade à la Rose.

	Parts
Fatty basis	1,000
Oil of rose geranium	15
„ bergamot	6
„ neroli	2

To be coloured a faint red with alkanet.

Pommade à l'Héliotrope.

	Parts
Fatty basis	1,000
Oil of cassie flowers	7
„ bitter almonds	3
„ cinnamon	2
Peruvian balsam	9

Pommade au Réséda.

	Parts
Fatty basis	1,000
Oil of bergamot	8
„ bitter almonds	6
„ neroli	4
„ ylang-ylang	1

To be coloured green with spinach.

Pommade au Citron.

	Parts
Fatty basis	1,000
Oil of lemon	10
„ bergamot	2
„ citronella	2

To be coloured yellow with gamboge.

Pommade aux Oranges.

	Parts
Fatty basis	1,000
Oil of orange-peel	10
„ bergamot	2
„ rose geranium	2

To be coloured orange with annatto.

REGISTERED "SANITAS" TRADE MARK.

DISINFECTANTS.

Fluids, Powders, Soaps, Toilet & Veterinary Preparations.

Gold Medals, Calcutta, 1884; Paris, 1885; Antwerp, 1886; Ostend, 1888.

KINGZETT'S BACTERICIDES.

KINGZETT'S PATENT PRESERVED

PEROXIDE OF HYDROGEN.

THE SANITAS CO., LIM., BETHNAL GREEN, LONDON.

SHOW CARDS, 24×17 or 17×12,
Free to any Address in the United Kingdom.



See First Page, facing inside of front of Cover, in the First Issue of the month and Inset between Pages 32 and 33 of this issue.

GLYCERINE & CUCUMBER,

First quality, 9d. per lb., by using

ROUSE'S CONCENTRATED CUCUMBER PASTE.

In Jars (free), ½-lb. 2s. 3d.; 1-lb. 4s. 3d. net.

Making respectively 3 lbs. and 6 lbs., costing ½d. per oz., by the simple addition of Water and Glycerine.

ATTRACTIVE LABELS FREE ON APPLICATION.

Through any Wholesale House, or post free for P.O.

ROUSE & CO., 12 Wigmore Street, LONDON, W.

Practical	Chemists use it as they appreciate its convenience.
High-class	Chemists use it as it gives the best results.
Scientific	Chemists use it as it requires no skill.
Cutting	Chemists use it as it bears a large profit
Busy	Chemists use it as it saves time.
Lazy	Chemists use it as it entails no trouble.
Go-a-head	Chemists use it as it supplies a want.
Old-fashioned	Chemists use it as it sells without pushing.

WRIGHT LAYMAN & UMNEY.

Solid Extract Malt Liquid

SOUTHWARK, LONDON.

To Advertisers

CATALOGUES & PRICE LISTS ILLUSTRATED

Advert. Blocks Engraved in Best Style at Moderate Cost

APPLY TO

W. BARKER & SON, 172, STRAND, LONDON.

SILICATED CARBON FILTERS



PATENT SELF-AERATING MOVEABLE BLOCKS

WORKS, BATTERSEA LONDON, S.W.

MUMFORD'S

FARRINGDON ROAD, LONDON, E.C.

PURE CRUSHED LINSEED IS NOW 17/- cwt. CARRIAGE PAID

TO ANY RAILWAY STATION IN ENGLAND, AND HALF TO STATIONS IN SCOTLAND, IRELAND, AND WALES. [2]

FINEST POWDERED

PURE FULLER'S EARTH

In 56 lb. and 1 cwt. bags, 14s.;
In 7, 14, and 28 lb. bags, 16s. per cwt., bags included.
DELIVERED FREE IN LONDON. [1]

FINEST QUALITY

PURE STARCH POWDER

In 56-lb. and 1-cwt. Bags, 26s.; [3]
In 7, 14, and 28 lb. Bags, 28s. per cwt., bags included.
DELIVERED FREE IN LONDON.

G. S. MUMFORD, FARRINGDON ROAD, E.C.

CREOLIN JEYES'

Saleable & Profitable Articles!

FOR CHEMISTS.

See Advertisement, page 162, this Issue.

Fletcher's Concentrated Liquors

See Diary Pages 17 and 18.

EDITORIAL NOTES.

THE GLASS-BOTTLE SYNDICATE.

A GOOD deal of attention has been paid during the past week to a circular, which seems to have been somewhat extensively circulated, although it purports to be "private," announcing at last the formation of the long-sought-for combination of glass-bottle makers. The circular is dated January 14, 1890, and is issued from 2 Victoria Mansions, Westminster Abbey (!) London, S.W. It states that "manufacturers, representing in numbers and productive capacity

of their works a large majority of the entire glass-bottle trade of the United Kingdom, are about to amalgamate for the purpose of being formed into a limited company, and this being an industry which offers exceptional facilities for effective co-operation, there is every reason to expect that the undertaking will prove highly remunerative." Some old-fashioned people have imbibed a sort of prejudice against these trusts, unions, combinations, amalgamations, or whatever they may be called, and it is, we suppose, with a view of meeting such objections that the provisional directors announce that they will not rely for financial success on the power the amalgamation will necessarily place in their hands for increasing prices, but rather on the economies they will be able to effect in carriage and freight, in buying raw materials, in new and improved methods of manufacture, and in increased efficiency of management. Before we excite ourselves about the generosity which the promoters attribute to themselves in renouncing the exercise of the giant's power which they anticipate will be theirs, we will immediately look a little more closely into their claim. Meanwhile, we note that the company are to enjoy "the exclusive use of the patent bottle-making machines, the property of Mr. Dan Rylands, of Barnsley, *together with all improvements and future developments applicable to the bottle trade.*" The sentence we have italicised is, perhaps, expressed more comprehensively than even the promoters intended; at any rate, it is a rather tall promise. The share capital is to be 1,400,000*l.*, divided into 100,000 ordinary shares of 10*l.* each (of which it is intended to issue 750,000*l.* at present), and 40,000 7 per cent. cumulative preference shares of 10*l.* each. Subscriptions will also be invited for 350,000*l.* first mortgage debenture stock in amounts of 100*l.* each, which will be secured on the entire property of the company, and will bear interest at the rate of 5*l.* per cent. per annum. Manufacturers themselves, it is stated, have agreed to take about 430,000*l.* of the share and debenture capital, and before issuing their formal prospectus to the public generally, they, by this circular, invite their customers and friends and the members of allied trades to participate in the undertaking. The provisional directors who sign the circular are Messrs. Wm. Bagley (Messrs. Bagley & Co., Knottingley, Yorkshire), W. Breffit (Messrs. E. Breffit, Castleford), J. J. Candlish (Messrs. R. Candlish & Son, Durham), Barron Kilner (Messrs. John Kilner & Son, Wakefield), E. Lyon (Messrs. Lyon Bros. (Limited), Lancashire), Dan Rylands (Messrs. Dan Rylands (Limited), Barnsley), Thomas Turner (Messrs. Thos. Turner & Co., Dewsbury), and Thos. Wood, Portobello.

The prices of bottles, and, indeed, of all glassware, are advancing considerably just now, and may advance still further. Fuel, chemicals, and wages are all higher, and chemists and aërated-water makers will have to reckon with this extra expense on bottles in their balance-sheets for 1890. The item, too, is one which they cannot generally recover from their customers. But the inevitable rise due to what we may call legitimate causes will not assist in reconciling purchasers to any further advance as the result of amalgamation, and the curious sentence in the circular that "the provisional directors will not rely for its financial success on the power the amalgamation will necessarily place in their hands for increasing prices," will not by itself allay their suspicions. We are, unfortunately, so constituted as to read that statement as indicating that the company will take advantage of their power in this respect as soon as they find themselves in possession of it. With a view of ascertaining what was the probability of their acquiring the power they allude to, we have endeavoured to get information from gentlemen actually concerned in the enterprise. We saw Mr. Walker, of Messrs. Breffit's, who, we understood, had taken an active part in the organisation of the union, but that gentleman politely intimated that he would prefer not to answer any questions. He told us that Mr. Fowler, the promoter, was alone in possession of the necessary information. We sought Mr. Fowler, but have been unable, so far, to get an interview with him. Mr. Fowler, we believe, was the floater of the famous Salt Union, and it may be assumed that he would not have undertaken an enterprise of this character without being satisfied of its substantiality. But it may be stated with confidence that this union as at present constituted does not comprise enough of the glass-bottle makers to entitle it to assume any power of dictating prices yet. Our representative had a conversation with two members of the firm of Kilner Brothers, who are one of the largest firms of bottle-makers in the kingdom. They have not joined the combination, and we gathered from them that they fail to see any sufficient advantage offering to them as manufacturers. They were rather reticent in expressing opinions as to the probable success of the company, because not being in it they could not judge about its working; but they mentioned to us several other large manufacturers who are not represented on the directorate, and who they had good reason to believe were not associated in the scheme. Whether the combination does indeed represent in numbers, and in productive capacity of their works, a majority of the glass-bottle trade of the United Kingdom, they could not say, because they did not know who had given their adhesion to it beyond the firms named; but they said there are thirty-two recognised great glass-works in the North of England, and of these only eight are actually named, and among these several of the principal are conspicuous by their absence. They see no power of advancing prices by a combination in face of the very keen competition from abroad, and they said that having been engaged in the trade for fifty years they are conceited enough to imagine that the introduction of syndicate directors and managers would not help them to conduct their business better or more economically. We shall perhaps know more when the full prospectus is issued, but from present appearances it does not seem likely that any great results, either for good or evil, may be anticipated from this long-talked-of and imposing amalgamation.

THE PHARMACOPŒIA ADDENDUM.

The announcement made a month ago of the General Medical Council's intention to prepare and publish forthwith an addendum to the British Pharmacopœia, 1885, does not appear to have awakened much interest in either medical or pharmaceutical circles. Perhaps the reason is that the users of the Pharmacopœia have not got over the feeling that it is the new one, and had not dreamt that it required to be supplemented in such a short time. We confess to a feeling kindred to this. It is so short a time since we were in the midst of an avalanche of criticism on the 1885 volume, that the criticism is scarcely half digested yet, and there has been comparatively little of the highest importance in the way of new remedies in the interval. Seven years elapsed between the 1867 Pharmacopœia and its addendum, and although there was a period of three years only between that Pharmacopœia and its predecessor, neither can be taken as a precedent for the present move. The 1864 Pharmacopœia was a tentative publication, to describe it in the most euphemistic manner; the 1867 issue was a decided improvement, but that of 1885 is so greatly in advance of its prede-

cessor that it might have been expected to stand good for at least ten years.

We do not like Pharmacopœial addenda. At the best they are a stop-gap, and that useful purpose is now excellently fulfilled by the Unofficial Formulary of the British Pharmaceutical Conference. Could not the Medical Council give it a pat on the back? One gratifying feature of the present movement is that pharmacists are to be corporately represented in it, thus restoring the useful association of talent which was observed in 1864 and 1867. It was the Pharmaceutical Council's own fault that it had not a voice in compiling the 1885 Pharmacopœia; but now that the opportunity has again occurred to it, we believe the Council is to make amends for past neglect by appointing a small but talented committee of pharmacists who are practically engaged in the everyday work of pharmacy. So there is not likely to be any arm-chair work from that quarter.

We take it that the Medical Council's Committee, which has charge of this matter, does not contemplate revising the Pharmacopœia now in force, simply to add to it. For that reason such suggestions as those made in a paper in our last issue regarding synonyms will not be considered. Synonyms, we have frequently stated, are the most dangerous additions we can have to the Pharmacopœia, since it has become recognised as an authoritative standard under the Sale of Food and Drugs Act. Pharmacists must watch very carefully any movements made in this direction, and the Pharmacopœia Committee on its part must deliberate slowly on any suggestions which are made. The list of synonyms in the paper referred to is a potent argument for caution. One example—sal volatile—suffices to point the moral.

The Pharmacopœia Committee has received special instructions regarding new remedies. None are to be admitted which have not their claims for recognition established by general use and proved value. Although the Unofficial Formulary is still in its infancy, it contains a number of preparations which deserve the careful consideration of the committee. We commend especially hypophosphorus acid, and the chloroforms of aconite and belladonna, for which formulæ are given in the Formulary addendum. Of the earlier formulæ those for acetum ipecacuanhæ, liquid extract of hydrastis, Blaud's pills, the hypophosphite syrups, the compound phosphate syrups, ammoniated tincture of ergot, and the preparations of Virginian prune bark appear to be the most valuable, and they are undoubtedly remedies which are extensively used. Amongst recent introductions there are comparatively few which have established a claim to recognition. The greatest difficulty which the committee has to overcome in regard to some articles is the fact that they are either protected by patent or are of proprietary origin. Antipyrin is a member of this class; nevertheless, the consumption of this drug is so enormous that the committee cannot do wrong in establishing a standard for it. Salol, a remedy of earlier origin, also demands consideration. We again commend to the committee the desirability of doing something in regard to concentrated infusions, and may suggest a useful addition to official confectionery in the shape of Sir A. B. Garrod's compound sulphur lozenges. We should like to see Hebra's diachylon ointment recognised; it is an extensively used preparation, and there is a tendency towards the multiplication of formulæ for it. These are but a few suggestions, and they are made with the object of eliciting more of a kindred nature from the trade generally. The committee invites the co-operation of all pharmacists in the work, and any contributions thereto which may appear in this journal will, we are assured, have careful consideration.

COMMERCIAL GEOGRAPHY.

THE teaching of geography from a commercial rather than a physical point of view has only begun to be seriously thought of in this country, since the words "technical education" first commenced to occupy a standing paragraph in our leading newspapers, and schemes for technical instruction were propounded in every direction. The technical education rage was the outcome of the alarm raised a few years ago, when our trade appeared to be dwindling and shrinking in all directions. At that time our consuls joined in the hue and cry, and never missed a chance to tell us in their reports of the immense advantages which our German competitors were gaining over us in all foreign markets, owing to the alleged superiority of their education. The Imperial Institute scheme also helped to keep the subject alive, as people generally seemed under the impression that one of the functions of that "regally gorgeous" establishment would be to instruct our present and future merchants some way of keeping themselves abreast of all rivals. The city guilds, also, for reasons best known to themselves, about that time began to display a more than usual interest in educational matters, the Board of Trade bestirred themselves into the publication of a monthly journal, and there was a general furbishing up of armour, and a loudness of determination that something must be done, which deceived even experienced persons into the belief that something would actually come out of all the official busying. That was in 1885 and 1886. Now, four years later, we are pretty much where we were. The consuls have temporarily ceased from frightening—their pictures are as rosy now as they were black before. At home and abroad it is all a tale of expanding trade and growing profits, the city guilds are enjoying respite and Nepenthe, the Board of Trade journal monthly rattles the dullest of dull bones, and the Imperial Institute is no one exactly knows where.

But all the same the agitation has not been without fruit, inasmuch as a number of thoughtful and learned persons have been encouraged by it to enrich the English speaking world with some useful handbooks on sundry commercial and technical subjects, for which we should be exceedingly grateful. Of such works two on commercial geography have recently reached us—viz., Chisholm's "Handbook of Commercial Geography,"* and H. R. Mill's "Elementary Commercial Geography."† Dr. Mill's book is by far the more concise and modest venture of the two, and, presuming commercial geography to be a subject which ought to be taught in schools at all, no better handbook, we should say, could be conceived for that purpose. Within the narrow confines of 132 pages the little work gives what it pretends to furnish, a sketch of the commodities and the countries of the world. The sketch is necessarily a bare outline only, and in attempting to give information in figures on such subjects as, for instance, the number of people speaking the principal languages, the relative tonnage of merchant fleets, the number of live stock in the principal countries, and so forth, the author has been compelled to generalise to such an extent that his figures, unless amplified and explained by a qualified teacher, must sometimes convey a wrong idea. He has done well in making an effort to treat each foreign country on the part of a native, and in that position, which to many Britons might seem uncomfortable, and even undignified, has succeeded in telling us as many interesting commercial facts about foreign countries as his space allowed him. We might perhaps be permitted to point out that no native of

* "Handbook of Commercial Geography," by Geo. G. Chisholm, M.A., published by Longmans, Green & Co., 39 Paternoster Row, E.C. 16*s.*

† "Elementary Commercial Geography," by H. R. Mill, D.Sc. University Press, Cambridge, C. J. Clay & Sons, Ave Maria Lane, E.C.

Belgium would call his country "Belge" as Dr. Mill does, but "la Belgique," nor is the city of Liège called Lüttich in the vernacular, but Luik, Lüttich being the German name. In one or two other paragraphs also the orthography is perhaps not quite correct, but they are not serious mistakes and can easily be rectified in a second edition. We would also suggest that it might then be advisable to add to the paragraph on spices the explanation that, though pepper comes into commerce chiefly from Singapore, yet most of it is produced elsewhere, and that in speaking of nutmegs and cloves some mention ought to be made of the Dutch colonies as regards the former, and Zanzibar as regards the latter article. The statement about the Eastern Andes forests yielding 6,000 tons of cinchona bark annually also needs revising, and it is a little way from the mark to say, without further qualification, that the commercial supplies of gum arabic, camphor and cutch are all obtained in various parts of Southern Asia. But, as we have said, the general scope and plan of the book is excellent, and if Dr. Mill consults one of his pharmaceutical friends he will be put right about the matters we have referred to. The author gives first a general review of commodities—mineral, vegetable, and animal, means of transport and forms of government; and, secondly, an account of the commercial aspect of our own and the principal foreign countries.

But we doubt whether, on the whole, it is possible efficiently to teach commercial geography in ordinary middle-class schools at all; we should rather think that it would be wiser to impart a good general knowledge of geography as usually understood—*i.e.*, simply with regard to the physical conditions and political divisions of the earth, and to leave to the period when business life is commencing the study of geography in its commercial aspect. Geography could easily be taught in a more attractive form than the usual one of cramming the pupil's head with lists of rivers, mountains, and towns difficult to pronounce and conveying little or no meaning to the mind unless special attention be directed to historically or physically interesting facts associated with the places committed to memory. But, if a liking for geography is once acquired, any intelligent individual upon entering a commercial career will naturally feel himself interested in obtaining information concerning the geographical facts affecting the commodities forming his particular branch of trade. For such studies Mr. Chisholm's handbook would form an invaluable basis. It has been compiled with great care and scrupulous exactitude, and our only cause for regret at the mass of valuable statistical and other information given in the book is that it may, and must in some cases, become obsolete within a year or two. Mr. Chisholm's book gives information concerning all the staple and many minor products of the earth, and the highest praise which we can bestow upon it is to say that it would be difficult to read any chapter of it without feeling that one had learnt something new and interesting. The author expressly claims that the book is not a mere repertory of the where and whence of commodities of all kinds. Nor could it have been. The work contains many well-worked out chapters on raw and manufactured goods; there is an excellent account of cinchona, and good chapters on oil-seeds, dyestuffs, resins, and spices, but it would, of course, have been impossible, in a work of this kind, to enter into minute descriptions of every article of trade. But the book will be a stimulus to further inquiry among those who are anxious to know more about the products in which they deal than is perhaps absolutely indispensable to the conducting of successful speculative bargains. Of course there are many people perfectly satisfied to carry on business for years in certain goods without ever inquiring where they came from until they reached them, or what becomes of them after they have left their hands. We know a wholesale druggist of many years' standing who has sold hundreds—perhaps thousands—of chests of rhubarb, and is wholly unable to indicate the country where the drug is grown by any nearer definition than "Tartary," though to be sure he knows that the drug is shipped from Shanghai; and another one who, though he has been doing business with America for years, expressed his astonishment upon learning that Chicago was not in Canada. To such traders Mr. Chisholm's book does not appeal, yet it would be well if they would study it, for this is the class of people who have most to fear from the well trained, well drilled, and intelligent German competition against which they are continually crying out. How is it that we have to play second fiddle to Germany in the aniline dye trade—though the first dyes were made in this country, and we still send British coal-tar products to Germany, and import them back in the shape of colours and medicines? How is it that Dr. Mill should be able to say in his book that in the production of fine chemicals and dyes Germany has no rival? Is it not simply because properly trained foreign minds have succeeded in securing that to which we in the main were content to apply the rule of thumb? It is a matter for regret that in Mr. Chisholm's book no space has been found to treat at greater length of the history of commerce, nor to tell us much about the comparative commercial advantages which new countries are likely to offer in the future. Under South America, for instance, only a few lines are devoted to Paraguay, although that little-known republic is almost certain of a splendid commercial future within a comparatively early period. In the excellent article on cinchona, to which we have referred already, it is stated that the bark is used medicinally in the form of extracts, the best known of which is quinine—which is, perhaps, not a very happy mode of conveying the idea that it is the alkaloids which have made the trade what it is—while, in the chapter on Africa, the statement occurs that the Island of Socotra "is chiefly known in commerce for its aloes, although the species of aloes which takes its name from the island is a native of South Africa (whence the drug is principally imported)." This is evidently written under a misapprehension. That part of South Africa from which the drug is principally imported is the Cape and Natal, and the aloes which we receive thence are certainly not those known in commerce as Socotrine aloes. There are a few other statements of this kind to which exception might be taken, but it would scarcely be fair to weigh these small errors against the general character of usefulness of the book, which will be found a most valuable work of reference by those engaged in foreign trade. The maps throughout the book are useful, but might have been a little plainer, and the work is brought up as near to date as possible; some events which occurred towards the end of 1889 have even been included in its pages. The author has dipped largely for his information into consular reports, trade statistics, &c., of British and American origin, but the fact deserves attention that where books of reference regarding geographical facts in foreign countries were wanted he had to fall back upon German works of reference more frequently than upon any others.

THE CHLOROFORM COMMISSION.

The *Lancet* of last week publishes in full the report of the surgeons who have been experimenting at Hyderabad on the action of chloroform. This occupies ten pages of our contemporary's space, and has been the subject of comment in

many of the daily journals. In mentioning the telegraphic report of the results, we have already explained the circumstances in which Dr. Lauder Brunton went out, with a fee of 1,000*l.* and expenses paid by the Nizam of Hyderabad, to take part in a physiological investigation instituted with a view of establishing a theory of the cause of death under chloroform. That eminent practitioner has been convinced that the opinion he formerly held that such deaths were frequently due to cardiacal syncope is untenable. He has come round unreservedly to the view advocated by Dr. Syme and other Edinburgh surgeons that fatal results were due to stoppage of the power of respiration, and not to arrest of the heart's action. This view had been more recently demonstrated, it was said, by experiments on animals conducted by Surgeon-Major Lawrie, the Residency surgeon at Hyderabad, with some associates. In order to convert Dr. Brunton and provide materials for this 1,000*l.* report, 268 dogs and 31 monkeys have been killed outright, while 86 dogs and 39 monkeys have been the subjects of other experiments in artificial respiration. The commission used 109 pints of chloroform and 11 pints of ether, and their labours extended from October 23 to December 18, excepting Sundays and public holidays, the hours from 7 A.M. to 5 P.M. being occupied.

We do not pretend to criticise the experiments or the surgical conclusions drawn from them, but it is to be hoped that the whole report will be subjected to the most searching and impartial analysis. It is a showy parade of the vivisectionists' force, and it is already evident that a great deal is to be made of it. At present, however, the glorification of the results is being proceeded with in an unusually cautious manner. The *Lancet* in its editorial article says "The practical outcome of the research *would appear to be* that deaths from chloroform are not inevitable." But the question is whether the commission has shown any practicable method whereby they can be prevented. An evidently favourable authority, writing in the *Times*, says that "prior to the work of the Hyderabad Commission the doctrines which it may be said to have established were gaining ground among the leading administrators of anæsthetics at the London hospitals, and the breathing was being more and more closely watched as the probable source of the first danger-signal. The view thus taken had scarcely found its way into books, but it was beginning to be recognised and acted upon in practice. But the greatest risk attending the administration of chloroform is one which no experiments can wholly set aside, and against which the greatest degree of security can only be obtained by the employment of a specialist as the administrator."

We gather from this that the commission has demonstrated that in the administration of chloroform every care and attention should be given! But is it possible that our surgeons needed the Nizam of Hyderabad to teach them this? The reporters themselves give their practical conclusions at considerable length, the essence of all being the necessity of watching carefully the respiration during operations under chloroform. The commissioners betray an occasional suspicion that some ignorant persons may raise the objection that dogs and monkeys are, after all, not human beings; but they assure us, in the most positive manner, that the effects of chloroform "are identical in the lower animals and in the human subject." The "best possible proof" of this is, it appears, some accidental deaths which occurred during their investigation. So be it; but we notice that they allude elsewhere to experiments made by Ringer, which have not been repeated and confirmed by the commission, showing that on the frog's heart chloroform has a gradually paralysing effect. They "conclude that such an effect, in the degree in which alone it could occur in the practical inhalation of chloroform, would rather be a source of safety than of danger." We are compelled to submit to all these conclusions, but we are much mistaken if the points we have mentioned do not offer openings for other Nizams to get up other commissions. In any case, the public have a right to expect that the benefits resulting from the massacre, recorded and applauded, shall be established beyond all gainsaying, by proofs which shall be obvious not only to preconvinced vivisectionists, but equally to all who can understand skilled reasoning.

VEGETABLE METEOROLOGY.

METEOROLOGY is not one of the exact sciences; at least, its results are uncertain, and it is always safer to trust to one's umbrella than to the forecasts which come to us with the morning's newspaper. Nevertheless, we have the hope that sometime in the twentieth century people will have greater reliance on the meteorological office than they have now, for, with the accumulation of knowledge, the perfection of observing instruments, and more accurate as well as wider-spread observation, meteorology is likely to come as near to exactness as most sciences can come. There are people who have no faith in weather instruments made by human hands; they prefer to trust the duck's prediction when he plumes his feathers, or the woefulness of the cock's crow at midnight as a natural herald of a wet day. To such quaint folk the discovery about two years ago that the leaves of *Abrus peregrinus* are an index of the weather two days ahead of Nature must have been a welcome piece of news, no matter though it was quickly proved that there is no such plant as *Abrus peregrinus*, and that competent botanists had failed to note anything marvellous about the leaves of *Abrus precatorius*. This happened in the latter part of 1888, and we had almost forgotten the existence of the "Vienna weather plant" until the Kew authorities recalled the circumstances in the last issue of their *Bulletin*.

Some may marvel that so distinguished a body of botanists as those engaged at Kew should have taken up a matter which had already been discredited by competent naturalists, but royalty is superior to science, and thereon are based an interesting story, a patent, a laborious botanical research, and this 28-page pamphlet which the nation has to pay for. The discoverer of the "Vienna weather plant" is Mr. Joseph F. Nowack, a manufacturing chemist of Prague, who with Mr. Ernst Bahlsen was granted an English patent (No. 18,026, December 31, 1867) for an invention which consisted essentially of

"An apparatus for indicating in advance changes in nature, such as changes of the weather, magnetic and electrical conditions, by means of Nowack's weather plant (*Abrus precatorius*), said apparatus comprising a transparent vessel containing the weather plant, closed on all sides, protected against injurious external influences, and adapted to be internally ventilated and maintained at a temperature of at least 18° Reaumur, these being the conditions under which, in temperate climates, Nowack's weather plant answers the purpose of a weather indicator."

This was the invention which thrilled Europe in 1888. The late Crown Prince Rudolph, as a naturalist, was much interested in it, and, when the Prince of Wales was visiting him that year, he called our future king's attention to it. Perhaps it was the memory of his dead friend which induced the Prince of Wales to give Mr. Nowack a letter of introduction to Mr. Thistleton Dyer. At all events, such a letter, dated from Marlborough House, July 13, 1889, reached Kew in that month, and from this point the botanico-meteoro-

logical research commences. Mr. Nowack placed some of his plants in the Jodrell Laboratory, where Dr. Francis Oliver, of University College, watched them and made the record.

Mr. Nowack states that the plants of *Abrus precatorius* are of two kinds—weather plants proper, and plants which simply indicate coming changes of temperature. He states that the leaves point either north, south, east, or west, and, if a plant is moved, the leaves will return to these points of the compass. The weather is foretold by movements of the leaflets and movements of the midrib. For instance, if the leaves gradually move up above the horizontal, that would show that 48 hours hence there will be "clearing up," or "fair weather," according to the intensity of the movement; but if the leaves fall below the horizontal, gloomy is the outlook. Wind is indicated by the acuteness of the angle between the leaves and the rachis, and the direction in which the points are placed shows how the wind will blow. The leaves also provide for electrical disturbances, and arrange for fog, snow, hail, and any other weather discomfort which afflicts man. These, roughly, are what the leaves were said to do, while the midrib was found to have some connection with earthquakes, mine explosions, and other violent disturbances of Nature. But, strange to say, it was not until he came to England that Mr. Nowack discovered seismographic faculties in his plants; in fact, his knowledge of them generally appears to have grown much during his residence here.

Amongst the first things which Dr. Oliver had to investigate was the correctness of Mr. Nowack's "forecasts"; there were twenty-three of these, eleven of them being given after the event. Once or twice Mr. Nowack came very near the truth, but the majority of his "forecasts" were quite wrong. The following is a fair sample:—

Forecast for October 23. Drawn up October 22. (Originally given for 24th.)		Actual Weather October 23.	
9.45	Overcast; some mist.	9—10	Overcast; no mist.
11.30	Mist to fog.	11.30	Rather brighter.
12	Fog increasing.	12	Overcast.
2—4	Rain and fog.	1—4	Overcast; no fog or rain.
	After 4 less rain, but more fog.		After 4 lighter; no fog.

Dr. Oliver's work shows that the movements of the leaves are entirely the result of variation of light. A cloud obscuring the sun's face for a brief period is sufficient to depress the leaflets from their high position to the horizontal. Moreover the temperature plants are more sensitive to light than the weather plants proper, and after studying the movements of the leaflets continuously for some days, Dr. Oliver found it possible to say with some certainty before visiting the plants what would, on the whole, be the position of the leaflets. Of course individual plants differed to some extent, some being less others more sensitive to variations in the intensity of the light. It is obvious, therefore, that in such conditions accurate prediction of the weather was impossible, yet Mr. Nowack was sometimes correct, and that fact had given undue prominence to the element of truth in his discovery. But was this any better than guessing? We think not, and have to thank the Kew authorities and the Prince of Wales for a scientific death-stroke to a fancy which was already moribund.

A Successful Recipe.—Some years ago we gave a recipe for tragacanth paste for mounting botanical specimens. This we had from the originator of the recipe, an Edinburgh pharmacist. Now we understand that the paste is used in the Smithsonian Institute at Washington. It has been used for some time in our principal museums here.

COMMENTARY.

The Competitors in our last post-card competition have been specially fortunate in regard to consolation prizes. As already announced, Messrs. Oscar Sutton & Co. have, through us, presented a guinea to each voter who selected their advertisement, and now Messrs. Burroughs, Wellcome & Co. inform us that they wish to give to all those who voted for their advertisements a neat pocket diary, which has been got up specially for the use of chemists and druggists. We shall give the names to Messrs. Burroughs, Wellcome & Co. in a day or two.

A Believer in Pasteur.—In the course of the work of the Chloroform Commission at Hyderabad one of the pariah dogs experimented upon proved troublesome. None of the assistants could tackle him. Dr. Lauder Brunton said, "You do not know how to manage that dog." He approached and the animal flew at him and bit him severely in the wrist, but the doctor, unmoved, seized him in an iron grasp, held him down, and administered the dose. When he released the dog the wrist was bleeding from two severe wounds. Everyone of course was alarmed, not only at the accident, but at the terrible possibilities. "It does not matter," said the doctor quietly, as he held out his hand to be dressed; "I thought something of this kind might happen, so before I came out I had myself inoculated by Pasteur in Paris!" This story is related by the *Pioneer of India*.

Never Heard of Pears' Soap.—Mr. Barratt, of Pears' Soap, told us a little while ago the following amusing incident illustrative of the fact that there appears to be no terminal point in advertising. A few years since, being at a large southern watering place, and observing a space thereon advantageous for the purpose of posters, Mr. Barratt applied to the secretary, a genial old gentleman, and agreed to accept his terms of 25*l.* a year for the space indicated. "To whom shall I book the position?" asked the secretary. "To Pears," replied Mr. Barratt. "Pears? Pears?" interrogatively said the old gentleman. "Yes, Pears' Soap!" added Mr. Barratt. "I never heard of Pears' Soap," was the reply. "Then in that case you would doubtless like a reference?" "Well, that is our custom, and we shall be glad of one." "Then please apply to the London and Westminster Bank, and ask them if they think an annual transaction of 25*l.* would be safe with the firm; but it would perhaps be easier for you on your journey home to-night to step into any or every chemist's shop you pass and ask the opinion of the proprietor, and I will call to-morrow for your reply." The following morning Mr. Barratt called. "Well, did you satisfy yourself with reference to our proposed transaction of yesterday?" "Oh, yes; that will be quite satisfactory." Mr. Barratt having discovered such a *rara avis in terris* felt interested in the specimen, who was invited to the hotel to dine, and where a very pleasant tête-à-tête evening was spent.

Pharmaceutical Society *v.* Wheeldon.—We are informed that the appeal in this case is still on the list, and will certainly be soon argued. Now we hold a certain amount of cash contributed towards the expense of the appeal. We have represented to the gentlemen who are conducting this case, that it is desirable to appoint a committee, or an individual approved by the subscribers, with whom shall rest the disbursement of this money. We are comparatively indifferent in the matter ourselves. As we have often stated, we believe that the victory of the Pharmaceutical Society in this case, is the more desirable result in view of the interests of pharmacy generally. But we

should like to see the opposite side well fought, and we think subscribers to the fund ought to be consulted about the steps to be taken, especially as they were sometime ago informed that the case could not be properly discussed in a court of law on less than 100*l.*, which has not been forthcoming. We ask them to communicate with us during the week, and by some means take the responsibilty off our shoulders. We want simply to hand over the money we hold to any one authorised by the contributors to receive it.

The Following Advertisement was inserted in this journal on December 28, 1889:—

Outdoors.—Two qualified assistants required for two pharmacies under personal supervision of principal; must be neat and industrious workers, and obliging to customers; competent to dispense and trustworthy. Hours from 8.30 to 10.30, but about eighteen hours per week allowed off, inclusive of meal-times; Sunday duty, evenings only as a rule, and one off per month.—Apply personally, or, if by letter, state age, salary required (outdoors), and full particulars, to &c., &c.

It has got into the hands of a scribe on the Manchester *Sunday Chronicle*, who thus lucubrates concerning it:—"The gentleman's address is in Battersea, London. I don't publish it. I don't want to make him feel proud, but I think the advertisement is a distinct encouragement to every workingman to give his sons the advantages of a good education, so that they may—well, that they may be kept out of mischief, so to speak, and not waste their time in frivolous pursuits. Eighteen honrs per week, inclusive of meal times! Some of the cleverest, kindliest, smartest men I know are engaged in putting drachms of rubbish into pounds of paper behind a druggist's counter. (Much the same thing as journalism, isn't it?) Their only drawback is that, like the people engaged in the scholastic business, they all regard each other with a lofty scorn. Schoolmistresses and schoolmasters cultivate the art of despising the human race in general and their colleagues in particular. Carlyle, who was the greatest schoolmaster the world has ever known, took that kind of influenza early, and he never shook it off. He would have achieved immense success as a druggist's assistant if the Fates had not decreed that he should mix the English language instead of making up dog-Latin prescriptions. Some day the druggists and the pedagogues will have sense enough to adopt the low, vulgar principles of trade unionism and combine; and then I shall rejoice to hear that they are getting the wages of masons and the treatment of men. At present they are all so infernally superior that advertisements like the one above quoted are possible. And who can help them if they will not help themselves?"

Inaccurate Dispensing.—We report this week particulars of three cases tried under The Sale of Food and Drugs Act, in which dispensers were charged with compounding certain prescriptions inaccurately. The proceedings appear to have been based on sufficient grounds, and are worth noting as a warning to those who are disposed to be careless in this most important pharmaceutical function, although, we believe, they are by no means numerous. There are several features in the cases which might be commented upon, but the most important is the fact that the analyst was able to state that common water instead of distilled water had been used in one case. This is the first time, we think, that this point has been raised, and as chloroform water must, according to the Pharmacopœia, be prepared from distilled water, there is no question of its validity. It shows, moreover, that should any dispenser be in the habit of acting contrary to the Pharmacopœia directions in regard o the use of distilled water only in medical prescriptions, he must be prepared to reckon with the skilled public analyst.

AT THE COUNTER.

Scene: Chemist's shop (not fifty miles from Glasgow). Enter Highlandman: "She'll want something for ta bile, and she'll tak' it just now." Chemist produces ½-grain podophyllin pill. H. stares with vacant look, swallows pill, then says, "She'll no be for me, but she'll be for my neebor in the lodging."

Pharmaceutical Advancement in Leeds.—The following are from the collection of a Leeds chemist:—Shucknele (for cochineal); hen pen scede for tho thoack (henbane seed for toothache); asafefiay; swashy chips; pomeganite of Polish; tamanganattie potash; critic acid; bromhide of pottesinm; bottle of corn solvent, that what will make you walk eight miles an hour.

"Carve nad hion for face," was the prescription submitted to a chemist in the West. He tells us he gave 1 oz., and charged 3*d.* Ferri carb. is our guess.

How they call them in Durham.—Customer: "What kind of scents do you keep?" Manager: "Do you want me to enumerate all the different kinds we keep?" Customer: "I want some 'Special Notice.'" (Stephanotis.)

Customer: "A penn'orth of 'Red Pacific.'" (Red precipitate.)

This, we are told, occurred near the middle of England:—Customer: "What is the price of senna leaves?"—"3*d.* per ounce." "What is the price of Epsom salts?"—"4 oz. for 1½*d.*" "What is the price of Spanish jnice?"—"2*d.* per oz." "Thanks." [Retires. An interval of ten minutes. Customer returns with three packets in his hand.] "Oh, Mr. Squills, will you tell me how to use this senna, &c.? The grocer could not give any information."

Lady Customer (purchasing a tooth-brnsh): "I shonld like a good one. I had the last one twelve years, and then lost it. Do you guarantee the wear of these brushes? as I have known people pay a good price and the brnsh then only last two years."

Costly Mistake.—Druggist: "What's the matter with you? You seem excited." Clerk: "Heavens! I sold Mrs. Smiley strychnine instead of potash." Druggist: "Well, if you aren't the most careless idiot I ever saw! You seem to have no idea of the value of strychnine."—*New England Medical Journal.*

Potass. Iodid. (215/61) sends the following original specimens of the written Lancashire drug dialect:—"2 oz. of Bird a pitch," "Pennyeth pilly of cawlion," "Pennyeth hallowis," "Hagslard acid" (oxalic acid).

An old Scotch woman was buying a quinine powder, and when she was paying a penny for the "wee pooder" she could not resist saying, "Sirse, sirse; ye'll hae aboot tuppence o' profit on't."

"Scotch Ammunition" was what a Dundee boy asked the chemist for. He got Scott's emulsion. The next youth demanded, "A pennyworth of pills to move my mother." He got compound colocynth pills.

"Pomergrante, 6*d.*" That was the order; 2 oz. cort. granati sent. This came back a few minutes later, with the order more explicitly written, "Pomegrate potash," and the verbal explanation that it was wanted "like Condy." That was at Buxton.

PHARMACEUTICAL TESTING.

THE following are a few short extracts taken from a book which we shall shortly publish, entitled "A Manual of Pharmaceutical Testing," and which has been written by Mr. Barnard S. Proctor, of Newcastle, whose well-known skill as a chemist is sufficient testimony to the correctness of the tests which are given in the volume, while his acquaintance with pharmacy and pharmacists enables him to select such tests as will "determine the quality of his Pharmacopœial chemicals with only such reagents and appliances as are usually to be found at the dispensing counter, and by such operations as are in daily use in dispensing." The manual will be uniform with the books which we have already published, and we have little doubt that it will be as popular and useful.

On Testing Chemicals.

Every pharmacist, says Mr. Proctor in his preface, should test his chemicals occasionally to see that their quality is up to the required standard. For this to be done frequently, the tests must be the simplest, speediest, and most inexpensive that may be devised. The tests should answer the question, Is the article fit for use? And having given an answer to this, it is in many cases of little moment whether or not the extent of deviation from standard be indicated. It is usually better and simpler to reject that which is faulty than to make an exact analysis and allow for its deficiencies. Absolute purity is a thing only theoretically attainable, and it is better to define within clear and reasonable limits what may be allowed in practice than to give definitions which, from being unnecessarily and impracticably stringent, become a dead letter.

Estimation of Ash.

In various cases the B.P. requires that chemicals either volatilise without residue or burn off without ash. For this purpose a piece of clean, bright platinum foil heated over a spirit-lamp or Bunsen flame is the best appliance. Glass is out of the question, and porcelain does not show a white residue so well. If the operation be performed critically, the total absence of residue is only to be expected when the material under examination is a product of sublimation. We may expect carbonate or chloride of ammonium to volatilise without a residue, but not nitrate. We may expect benzoic acid to be free from fixed residue, but not to find citric acid to be free from ash. If we take cognisance of $\frac{1}{10000}$ of a grain of residue, which is a very visible quantity if on a slip of clean glass, we cannot expect a grain of citric acid to burn off and leave less than this. In some cases the requirement is more cautiously expressed: for example, tartaric acid is said to leave *no residue, or only a mere trace.* In burning off any substance which is not a product of sublimation we may be satisfied if 1 grain leaves an ash which we judge, by comparison with a known standard, to be not more than $\frac{1}{1000}$ of a grain. Under the characters and tests of cotton-wool we find the British Pharmacopœia allows a very liberal latitude for ash—that is, that it shall not contain 1 per cent. It may easily be purified to contain less than that, though I have not been able to obtain it free from the last traces, even after long-continued maceration in hydrochloric, hydrofluoric acids, &c. The requirement that hydrochlorate of morphia and sulphate of quinine should burn away without leaving any residue, if understood literally, would condemn many good samples.

Acidum Aceticum.

This acid should contain 33 per cent. of the true acid, $HC_2H_3O_2$, in which case 182 grains will dissolve 47 grains of carbonate of magnesia, but not 48 grains. If it answers this test and leaves no fixed residue, the only probable impurity is sulphurous acid. A much readier test [than the B.P. one] for this impurity is to add a drop of tincture of iodine to a drachm of the acid, which gives it a yellow-brown tint if the acid be pure, but is instantly decolourised if there be sulphurous acid present to the extent of $\frac{1}{160}$ of a grain in the fluid drachm.

Antimonium Tartaratum.

Sixteen grains of tartar emetic with 12 grains of iodine, and 20 of bicarbonate of sodium, rubbed in a mortar with 2 drachms of water, should leave a colourless solution when the effervescence has gone off, and $\frac{1}{2}$ grain additional iodine should render it brown. By this means I have found in a parcel of tartar emetic which had become partially effloresced opaque crystals which indicated nearly 2 per cent. greater strength than those which were transparent.

Colocynthidis Pulpa.

Powdered colocynth of commerce must not be mistaken for the official colocynth pulp; the former may be readily distinguished by the grittiness of the powder between finger and thumb, due to the toughness of the seeds making it impracticable to reduce them to a smooth, soft powder. As the seeds are oily as well as tough, the B.P. confirms their absence by requiring that the powder shall not yield oil when treated with ether. Shake ʒss. of the sample with fʒij. ether, throw upon a filter-paper, and evaporate the filtrate. It should not leave a drop of oil.

Colour Reactions.

In using litmus, &c., the reaction is more delicate with the tincture than with the paper, and for any special purpose a number of small drops of the tincture upon a white slab readily gives delicate indications.

Extractum Cinchonæ Liquidum.

This, being a preparation rarely made by the dispensing pharmacist, may be advantageously tested in the following manner:—Evaporate fʒij. to about ʒj. to drive off the spirit, then add ʒj. water and ʒss. solution of ammonia ·959, and shake with fʒij. chloroform in a separating funnel; run off the clear chloroform into a small tared evaporating dish; add to the contents of the separater fʒij. more chloroform, shake, subside, and run off the clear chloroform as before into the dish, drive off the chloroform at a water-bath temperature till it ceases to lose weight. The contents of the dish should then weigh 5 grains or a little more, but not 6—theoretically 5·46.

Liquor Calcis.

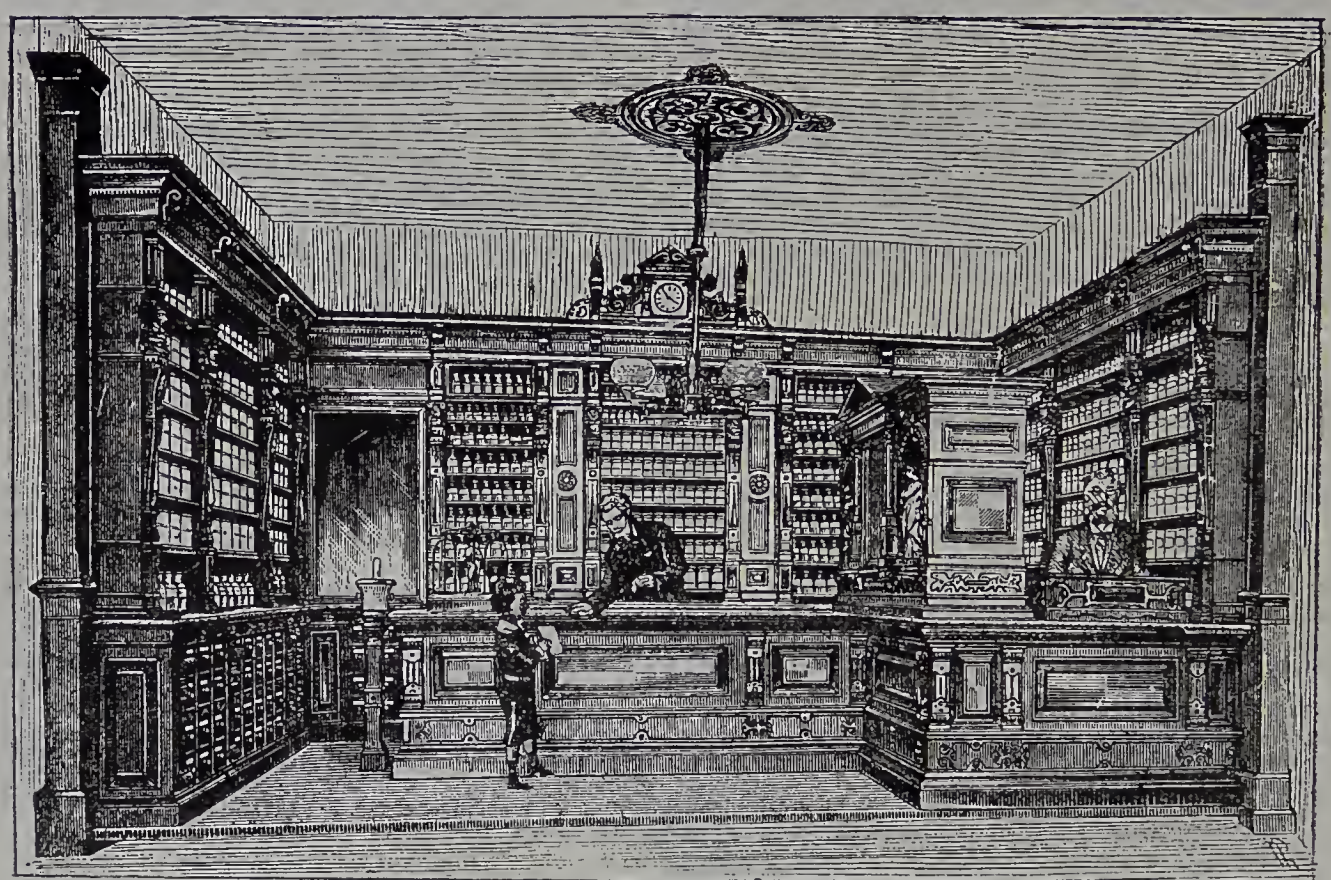
This should be tested as regards its strength; it may be considered satisfactory so long as 1 fluid oz. more than neutralises 1 grain of oxalic acid. The B.P. volumetric test requires that 10 fluid oz. shall neutralise 11·3 grains of oxalic acid. The most convenient mode of working is to colour 2 fluid oz. of lime-water with a few drops of tincture of litmus, and add a solution of 2 grains of oxalic acid, when a white precipitate of oxalate of calcium falls in the solution, which should retain its blue colour. Should the tint be red, the lime is deficient. This is all that the pharmacist usually requires; but, if it be desired to estimate the extent of deficiency, more of the lime-water may be added gradually till the blue colour is restored, when it will be seen how much of the sample in hand is equal to 2 oz. of good quality.

Unguentum Hydrargyri.

Mercurial ointment is one of the few ointments that the ordinary pharmacist does not make for himself, and consequently one the correctness of which it is desirable he should have the means of verifying. The density of the ointment gives a fair presumptive evidence of its strength, especially if corroborated by an examination with iodine. Taking the specific gravity of the fatty matter as ·9348, and that of the mercury as 13·6, the theoretical gravity of the ointment should be 1·71; but from the nature of its manufacture there are always minute air-bubbles diffused through its mass, which reduce this figure more or less. Practically I have found its specific gravity to be 1·655 when taken in the following manner:—Take a little compact piece, about 8 or 10 grains, out of the bulk, roll it into the form of a pill by the aid of a wet finger on a wet surface of paper or wood, throw it into some dense aqueous solution in which it floats, dilute this with gradual additions of water till the ointment and solution have the same density, and then take the density of the solution with the specific-gravity bottle. There are but few pharmaceutical liquors sufficiently dense for this purpose. Sulphuric acid is too corrosive, and evolves too much heat on dilution to be convenient, but a saturated solution of chloride of zinc or a syrupy phosphoric acid of sp. gr. 1·750 may be conveniently used.

A GERMAN PHARMACY.

THE arrangement of a German "apotheke" is as completely under the surveillance of authority as is the pharmacist himself, so that all pharmaceutical establishments are modelled more or less upon the same type. The licence of the "apotheker" applying only to a certain position, and the holder being, with very few exceptions, obliged to rent the house and grounds connected with the shop, there is, of course, every inducement to establish the business in a manner consistent with its probable permanence. In some instances businesses have been carried on in the same house for centuries, and it is the recognition of this connection between the house and the business that leads to the conspicuously solid character of the appurtenances of the latter. The uniformity of type alluded to often characterises also the situation of the pharmacy, particularly in the smaller towns, where it is generally placed to overlook the market-ones; those which have to be kept separately, such as narcotic herbs, their preparations, iodoform, chloroform, carbolic and mineral acids, morphia, &c.; and lastly the poisons, which are stored in a special compartment or cupboard, under detailed conditions, which were more minutely described in this journal about a year ago. The interior of the shop, as noted above, is fitted in a substantial and elegant manner, which entails the expenditure of a minimum of 150*l.* or 200*l.* Joinery and cabinet work is, however, much cheaper in Germany than in England. The various glass vessels must have burnt-in labels, the character of which varies according to the class of the drugs, &c. Thus the harmless drugs are placed in vessels labelled in black on a white ground; those called "separanda" are distinguished by red letters on a white ground; while the poisons have white characters on a black ground. Another point of difference from the English pharmacy lies in the fact that weights are exclusively adopted, measurement by volume, even of water, being forbidden. That part of the shop designed for dispensing is shut off from the remainder by a



HOW A GERMAN PHARMACY IS FITTED.

place, and also very frequently occupies a corner position, so as to ensure notice.

The German "apotheke" differs considerably in external appearance from the English pharmacy, in that the arrangement of show-windows is almost unknown. In fact, such a method of advertisement is regarded as scarcely consistent with the dignity of the profession, although in a few of the larger towns this old-fashioned conservatism has been to a certain extent set aside, and the windows are utilised for a moderate display of large vases, globes, and similar insignia of the business.

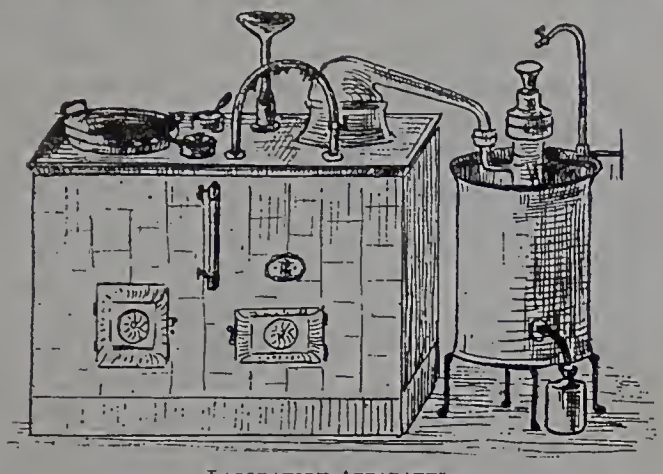
The ground plan on next page may be taken as indicating the general principles which regulate the construction of the better-class "apotheke." The explanation of its various divisions will make clear the nature of the legal requirements already alluded to. First comes the "officin," or shop proper, marked A in the plan. It is required that herein shall be found all drugs, chemical and pharmaceutical preparations, as well as all appliances necessary for dispensing. The various galenicals are ordered to be stocked according to a system based on alphabetical succession, the whole being classified into three principal sections, viz., the harmless screen shown in the illustration of the shop interior on the right, where the "provisor" is seen copying a prescription, while a younger assistant is engaged at the retail counter serving a boy.

From the shop a door leads into B, the private room of the head of the business. This room is daily used by him, as commonly he does not take a practical part in the work of the "apotheke." Here are received such medical men as may call in, and it is, therefore, generally furnished in the style of a drawing-room. Some of the more modern businesses, particularly at the baths and health resorts, have also a similar apartment for the convenience of patients waiting for medicines.

On the right, behind the counter, there is the door into C, the sitting-room of the assistants (in such a business as we are considering two or three in number), intended for use in the evening after the principal business hours are over. This apartment is often fitted with cupboards, in which are kept such stock as boxes and patent medicines. In some smaller business the chief and the assistants have one room in common, but this is exceptional.

Though so convenient an arrangement does not always

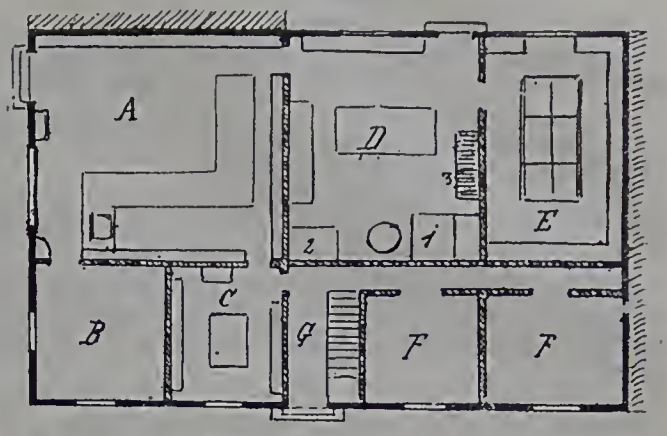
obtain, many establishments will be found in which a door leads directly from the shop into the pharmaceutical laboratory—an essential in every "apotheke"—fitted with steam apparatus for preparing infusions, decoctions, carrying on distillations, &c. The cost of the apparatus usual in an establishment where two or three assistants find employment is generally from 50*l.* to 100*l.* The compact arrangement ordinarily adopted is shown in our sketch. Often a



Laboratory Apparatus.

boiler is included, which produces steam for various purposes. All apparatus necessary for making the pharmaceutical preparations must be at hand, as well as such as is necessary for conducting analytical work. In this laboratory are made nearly all extracts, tinctures, plasters, ointments, chemicals, such as liquor ferri and other iron preparations, liq. potass. acet., soda tartarata, and so on. Here also the strength and purity of the purchased galenicals are tested, and from this department the shop and dispensing bottles are kept filled. In the plan, D 1 represents the steam apparatus, with which is connected a drying cupboard; D 2 is a fume chamber; and D 3 shows the position of the steps leading to the basement, where it is provided officially that the stock of tinctures, acids, and other liquids shall be kept.

Also in the laboratory will be a door leading to the yard, in which are two sheds, one of which is generally arranged to contain the appliances for powdering, sifting, and the like; this is called the "stosskammer." Adjoining the laboratory



is a further room, E, the store-room for drugs, herbs, alkaloids, mixed powders, and dry chemicals generally. A top-floor is also officially required for the drying of fresh herbs in the season, and if the pharmacist chooses to buy them ready dried he must be able to show the official that he has such a room on the premises.

In the ground plan we have further to notice F, the sleeping apartments for the assistants, and G, the private entrance. The plan shows that every part of the building connected with the business is quite distinct from the house, while access from the street is only possible through the shop door. The older businesses are often differently and less conveniently designed, the laboratory and store-room being in a separate building across the yard. Sometimes, also, the "apotheke" will be found so arranged that the dispensing department faces the street corner, which, being rounded or five-angled, contains the main entrance. In many cases, too, the night assistant's sleeping-room is not, as in the plan, in contiguity with the pharmacy.

The night-bell is one of the details of the "apotheke" which is specially provided for by law. Considerable care is displayed in the arrangement of this convenience, which is subject to examination at each visit of the official inspector. The same kind of paternal care regulates the lighting of the "apotheke" and other minutiæ of management.

BE SURE OF YOUR SCHEELE.



"The dog is strange and fierce," they said;
"'Twere better far that he were dead."
They called a pharmacist to aid;
And though the task was much delayed
By wholesome fears of doggie's bite,
Which made our chemist pale with fright,
Yet tied and chained he was compelled
To take the dose. He never yelled,
But quietly yielded up his breath.
They said, "It was a painless death."

The gentle pharmacist next day
Was pounding pills in guileless way.
By chance he calmly raised his head
And saw the dog he'd left for dead!
Yes, saw him staring face to face!
That shop it was a roomy place
In general. But how small to-day
To dodge that dog and skip away!
How bottles flew and mortars passed
Before some help arrived at last.
This true tale's moral's quickly said—
When you "kill" dogs be sure they're dead.



Trade Notes.

Mr. Pascall is supplying chemists with bags with waxed paper linings in which to retail his Golden Maltex.

Messrs. Evans, Lescher & Webb's annual price-current of druggists' sundries, &c., is well worth keeping on file. We have just received the edition for 1890.

Mr. Richard Corner, Wellington, Somerset, has transferred his business of manufacturing Devonshire oils, to his nephew, Mr. Edward Corner, of the same address.

Messrs. Marshall Bros., of the Drug Stores, 15 Fawcett Street, and 15 St. Thomas Street, Sunderland, are opening a branch store at 112 Musgrave Street, West Hartlepool.

The directors of Bovril (Limited) have declared an interim dividend for the half-year ending December 31 last at the rate of 20 per cent. per annum, tax free, payable on January 31.

Mr. H. J. Ellery has retired from partnership in the firm of Gent & Co., electricians, Faraday Works, Leicester, and Mr. A. W. Staveley and Mr. H. I. Parsons have been admitted. These, with Mr. J. T. Gent, will constitute the firm in future, which will be carried on under the style of Gent & Co.

Jeyes' Sanitary Compounds Company (Limited) annonnce that they will adopt for the refined preparation among their products the name of creolin, under which title it has become famous in Germany. They will also make creolin soap, creolin gauze, lano-creolin, &c.

One of the handsomest of modern show-cards has been produced by Messrs. Blondeau & Co. to advertise Vinolia Soap. It represents a beautiful girl, and the drawing and colouring are both exquisite. It will adorn any pharmacy or window.

Messrs. G. & G. Stern tell us that they have a good deal of trouble with certain chemists who put up some other kind of pine oil and label it "pumiline" which is Messrs. Stern's trade mark. They publish a notice on the subject in this number.

Since the publication of our article in the Diary on the seed trade, we have had a number of inquiries about the matter. We have pleasure, therefore, in calling attention to Messrs. Potter & Clarke's advertisement, in this issue, dealing with flower-seeds.

Messrs. Newbery & Sons have sent us an advance copy of their catalogue of patent medicines, &c., for 1890. They have always made this particularly useful by classification under names of makers and of varieties of goods, such as soaps, foods, wines, &c. This year they appear to have carried ont such arrangements more fully than ever.

Printed Pills.—We call attention here to an announcement made in this issue by Messrs. Fournier & Cie. (formerly Maison L. Frere), of 19 Rue Jacob, Paris, manufacturers of printed coated pills and granules. They give price lists, and it will be seen that they are quite *au courant* with English requirements. The products are beautifully made goods.

We understand that the pinol-eucalyptia dry inhaler, made by Messrs. Burroughs, Wellcome & Co., is being largely used in treating both the acute symptoms and after effects of inflnenza. Being packed in small space it can be carried in the pocket, and when the slightest irritation of the throat, or coughing arises, the patient uses the inhaler for a few seconds, when the irritation subsides.

It will be seen from an announcement made in this issue that Messrs. Thomas Christy & Co. have received intimation from the Board of Trade that their patent surgical tissue—"Christia"—has been accepted by the Board as a substitute for oiled silk, and as such it can be supplied to passenger ships. We understand that the article is also being supplied to the French Government.

A Pharmacist's Pocket Diary.—Messrs. Burroughs, Wellcome & Co. have for a few years past presented chemists with a neat little pocket diary and memorandnm book. The one for the current year is in no respect behind its predecessors. It contains, besides a complete list of the firm's specialities, 104 pages for notes, half of them being in Diary style, and the rest for addresses and memoranda, these pages being alphabetically arranged. Any chemist can have a copy of this Diary for the asking, and to make it still more useful, the firm offer at cost price a leather case which is provided at one side with pockets for postage stamps, visiting cards, &c., and at the other has a supply of blank papers for notes. The combination is well worth having.

Aërated-water Essences.—We have had the opportunity lately of subjecting to a critical examination a number of essences manufactured by Messrs. Duckworth & Co., of 93 Corporation Street, Manchester. On former occasions, especially in connection with the Brewers' Exhibitions, the manufactures of this firm have come under our notice. As exporters, with an extensive Indian and Colonial connection, the firm have made it a feature of their business to produce essences which will form beverages able to withstand the extreme heat and other influences which induce cloudiness and fermentation, and they claim to have secured success in this endeavour. This is a point which the home climate does not enable us to judge, and onr attention was directed to the intrinsic value of the essences. In the case of their soluble essence of Jamaica ginger we found that we were dealing with a preparation possessing excellent aroma and powerful pungency, both being wholly of the ginger character, and free from capsicum. The essence contains a little over 1 per cent. of solids, mixes clear with water, and is absolutely free from alkalinity. This latter featnre is a good characteristic, as showing the care with which the essence is prepared. We take it that this essence is the basis of the firm's "Premier" ginger-ale extract and soluble essence of ginger ale, both of which possess the pungent properties of the plain essence. Belfast ginger ale, for some reason or other, has taken the premier position amongst such beverages, and this is tbe standard which Messrs. Duckworth & Co. have aimed at in their "Premier" extract. We must say that they have succeeded admirably; their essence makes a well-flavoured ale, which is free from the after "nip" common in ginger ales. Amongst other preparations of the firm which we have examined are soluble essence of lemon (powerful and not turpentiney), essence of champagne cider, and essence of Jnbilee champagne, all of which are skilfully made preparations.

MARRIAGES.

[*Notices of Marriages and Deaths are inserted free if sent with proper authentication.*]

Mitchell—Webster.—On January 14, at the church of St. Stephen's, Shepherd's Bush, by the Rev. Mr. Ramsey, assisted by the Rev. W. Bentley, Harold Mitchell, chemist and druggist, of South Wimbledon, to "Pops," daughter of the late Henry Webster, Esq., of Bayswater.

Pearson—Edwards.—On January 2, at Llandough Parish Church, by the Rev. Lewis U. Jones, Mr. Henry Pearson, chemist and druggist, Cogan, to Editb, eldest daughter of the late Mr. Thomas Edwards, chemist, Usk.

Watts—Turner.—On Jannary 14, at St. Oswald's Church, Chester, by the Rev. W. H. L. Cogswell, M.A., Robert Watts, pharmaceutical chemist, second son of John Watts, Pitsmoor, Sheffield, to Jessie, youngest daughter of Charles Turner, Chester.

DEATHS.

Bellhouse.—On January 15, at his employer's establishment, Mr. J. Bellhouse, for a lengthy period sub-manager of Messrs. Graham's State Pharmacy, 30 Westmoreland Street, Dublin. The sad occurrence is ascribed to a severe attack of influenza.

Dobson.—On January 16, 1890, Mr. John Dobson, pharmaceutical chemist, Newcastle-on-Tyne. Aged 71. The deceased chemist was a well-known and highly-esteemed inhabitant of the Northern city, had served on the Council for nearly twenty years past, and since May, 1887, had been

invested with aldermanic dignity. He had taken an active part in many of the labours and enterprises of the Newcastle Corporation. In his early days he was indentured to Mr. C. R. Henzell, a surgeon of Newcastle, and with him he duly served six years. But when about to proceed to qualify, an opportunity occurred of an engagement with Mr. Joseph Garnett, the locally-famous apothecary and chemist, whose old shop on the "Side" was sketched in this journal last year, and is represented, as we then stated, in a stained-glass window in the Newcastle Cathedral. Mr. Garnett was not only a chemist and a philanthropist; he was a scientific man of exceptional qualifications, a linguist, and a musical composer. He also maintained a high reputation as a prescriber. Mr. Dobson's early training was very valuable to him in Mr. Garnett's business, and he soon gained the entire confidence of the latter. After being his assistant and manager for twenty years, the old gentleman in 1858, then 87 years of age, presented to Mr. Dobson the goodwill, fixtures, and stock of his business, and allowed him a year's occupation of the premises rent free. The old gentleman still interested himself in the business, however, and lived till he was 90. Mr. Dobson religiously maintained the quaint and peculiar aspect of the place. The shop was to the last maintained as nearly as possible in the shape which it bore when Mr. Dobson entered it in 1838. The counters were low and narrow; the pigeon-holes and nests of drawers many and mysterious; the windows were filled with the small-sized sheets of glass that occupied the frames in the days when plate and crown glass were unknown; and the only portions of a valuable stock disclosed to the public gaze were a few boxes and packets of patent medicines, and an assortment of big bottles filled with coloured water. In the rear of the shop the little stuffy sanctum was kept in exactly the same condition, as regards furniture and fittings, as had been the case in the early years of the century, and here as many of the friends of "Dr. John" as could be squeezed into the confined space were wont to meet and discuss parochial and municipal affairs with the genial tradesman. Besides his business and municipal affairs, Mr. Dobson interested himself actively in political matters, his sympathies being cast for the Conservative side. He heartily enjoyed horse and boat races, and had some direct interest in certain pieces of thoroughbred horseflesh. His cheerful disposition and inexhaustible fund of humorous anecdote secured him a welcome in social circles that was accorded to but few. Nowhere was he a greater favourite than at the Newcastle Bowling Green, of which he was governor for a couple of years, and where many of his pleasantest hours were spent. Possessor of a splendid physique, he might, when over 60 years of age, have been readily judged to be a score of years younger. But early in 1881 he was suddenly stricken with partial paralysis, and although his fine constitution enabled him to shake off the immediate consequences of the attack, he was from that time an altered man. In 1877 Mr. Dobson married his second cousin, Miss Anne Baty, of Hexham.

DUDLEY.—At Humbaston, Leicestershire, on January 18, after a long illness, Thomas Melville Strong Dudley. Mr. Dudley retired in 1887, having formerly, for twenty-five years, carried on the business now in the occupation of Mr. O. Berridge, Belgrave Gate, Leicester.

DUNSFORD.—On January 7, Mr. Samuel Dunsford, chemist and druggist, Market Place, Wigan. Aged 47.

HAYDON.—On January 9, Mr. Frederic Walker Haydon, pharmaceutical chemist, Fordinbridge, Hants. Aged 66.

HUGO.—On January 7, Mr. John Edmund Hugo, pharmaceutical chemist, Addle Street, London. Aged 55.

KNIGHT.—On January 14, at Wincanton, Mrs. Knight, the wife of Mr. A. G. Knight, chemist, High Street, Wincanton.

LOCKHEAD.—On January 3, Mr. James Lockhead, chemist and druggist, Elderslie Street, Glasgow. Aged 81.

PASCO.—On January 6, Mr. George Pasco, chemist and druggist, Hackney Road, London. Aged 51.

SPRATLING.—On January 12, Mr. Walter Spratling chemist and druggist, Barton Street, Gloucester. Aged 29.

WILLIAMS.—On January 11, Mr. William Williams chemist and druggist, High Street, Tenby. Aged 57.

Personalities.

MR. J. H. COMFORT has been lately engaged to represent Messrs. Thompson, Walters, Hole & Co. (Limited) in Ireland. Mr. Hole of that firm has been laid up for a week at Exeter with influenza, but is now on the road again.

PROFESSOR E. REICHARDT, of Jena, who for many years has edited *Archiv der Pharmacie*, the organ of the German Apotheker Verein, has resigned the position, and is succeeded by Professor E. Schmidt, of Marburg, and Professor H. Beckurts, of Brunswick.

THE personal estate of Robert Brown, merchant, Glasgow, who died at his residence, Woodcroft, Partick, on September 21 last, has been returned at 42,863*l.* The deceased was a partner of the firms of Brown Brothers & Co., wholesale chemists and druggists, and Robert Brown & Co., wine and spirit brokers.

MR. GEORGE H. J. CULLWICK, chemist and druggist, of 112 High Street, Southampton, has retired, having sold his business to Mr. W. Martin, pharmaceutical chemist, of Launceston, who will in future carry it on at the former address.

MR. CHARLES F. RIDEAL is editing a series of text books and manuals for the use of nurses. The series will consist of twelve volumes, and the first, entitled "Lectures to Nurses on Antiseptics in Surgery," by E. Stanmore Bishop, F.R.C.S., will be published in about a week by Messrs. Sampson, Low, Marston, Searle & Co.

THE will, dated July 6, 1889, of the late Mr. John George Shirley, of Westbourne Grove, pharmaceutical chemist, who died on September 18, 1889, has been proved at the principal Probate Registry, Somerset House, by Messrs. John and Arthur William Shirley, the executors. The gross personalty amounted to 5,407*l.* 4*s.* 3*d.*, and the net to 4,980*l.* 2*s.*

BANKRUPTCY REPORTS.

Re Tom Marsden, Manufacturing Chemist, Wyke, near Bradford.

THE first meeting of creditors under this failure was held on January 20, at the office of the Official Receiver, Bradford. The meeting was presided over by the Deputy Official Receiver. The statement of affairs showed liabilities to unsecured creditors, 8,040*l.* 18*s.* 3*d.*; creditors fully secured, 3,053*l.* 2*s.* 2*d.*; estimated value of securities, 3,226*l.* 11*s.* 8*d.*; surplus to contractors, 173*l.* 9*s.* 6*d.*; other liabilities, 1,615*l.* 16*s.* 8*d.*; liabilities on bills other than debtor's own acceptances, 208*l.* 10*s.* 2*d.* Total liabilities expected to rank for dividend, 9,656*l.* 14*s.* 11*d.* The assets were, stock-in-trade, 500*l.*; trade fixtures, fittings, &c., 1,150*l.*; farming stock, 20*l.*; furniture, 70*l.*; horses, waggons, &c., 250*l.*; total, 1,990*l.* The whole expected to produce 1,110*l.* Book debts, good, 786*l.* 3*s.* 4*d.*; surplus from securities in the hands of creditors fully secured, 173*l.* 9*s.* 6*d.* Total, 2,069*l.* 12*s.* 10*d.*, which, after deducting 243*l.* 17*s.* 8*d.* due to preferential creditors, leaves a deficiency of 7,830*l.* 19*s.* 9*d.*

The Official Receiver, in his report, states that the debtor attributes his insolvency to depreciation in the value of his business premises and machinery, and to losses incurred by experimenting in chemistry. The debtor has been a manufacturing chemist and logwood cutter since January 1888, at Flashpond, Wyke, having taken over a chemical manufacturing business, which had for 14 years previously been conducted by his father. He states that he commenced in partnership with his brother without capital, except an arrangement for overdraft with the firm's bankers, and that they traded together under the style of "John Marsden and Sons" until July 1889, when, owing to a disagreement, his brother retired from the business, and it has since been carried on solely by himself. In order to commence the business of logwood cutters, it was necessary to build a new mill and to purchase machinery, and this involved a total outlay of about 5,000*l.*, of that sum 2,000*l.* was borrowed on security of the property, and the remainder taken out of the business. The result of this extension was the increase of their turnover

from about 3,000*l.* to 12,000*l.* per year, but the profit yielded was altogether insufficient to meet the heavy business expenditure. The debtor cannot, however, form any idea as to the amount of profit made and the actual business expenses, as proper books of account have not been kept, and a very considerable amount of time and money have been lost by experiments in chemistry.

In December last the debtor, feeling that his position was hopeless, called his creditors together, to whom a statement was presented showing liabilities 9,481*l.* 13*s.* 7*d.*, and assets 1,889*l.* 10*s.* He made an offer of 5*s.* in the pound, but it was refused, and he thereupon filed his petition in bankruptcy. The only book of account of any service is a day book. At the commencement the firm provided all the necessary books, but the debtor's brother, who, up to the time of his retirement, was responsible for the book-keeping, neglected to post them properly, and he (the debtor) has been unable to do so since. The deficiency account filed is as follows:—

Excess of assets over liabilities on January 1, 1888:—

	£	£ s. d.
Surplus in land	100	
Household furniture	70	
		170 0 0
Deficiency as per account of affairs		7,830 19 9
		8,000 19 9

Estimated net loss arising from carrying on business from January 1, 1888, to date of the receiving-order, after deducting from profits the usual trade expenses, 1,513*l.* 13*s.* 2*d.*; bad debts, 202*l.* 1*s.* 10*d.*; depreciation of book-debts, 29*l.* 5*s.* 4*d.* Expenses incurred since January 1, 1888, other than usual trade expenses, viz., household expenses, 156*l.* The difference between cost and present value of land, logwood mill, sulphate of soda plant, &c., 2,454*l.* 2*s.* 9*d.*; liability to H. North, 500*l.* List D of statement, 1,615*l.* 16*s.* 8*d.*; depreciation of property, 880*l.*; law costs, paid and owing, 300*l.*; loss on carboys, paid and owing, 350*l.* Total, 8,000*l.* 19*s.* 9*d.*

Mr. S. Robinson, debtor's solicitor, renewed an offer of composition of 5*s.* in the pound, payable in two instalments, at three and six months, secured by a promissory note signed by the debtor and Mr. Harry Mitchell, stone merchant, Dunford Bridge.

The Deputy-Official Receiver said this would be opposed by the Official Receiver. The debtor had only been in business two years, and there was a very large deficiency, besides which he had not kept proper books of accounts. These facts would be reported to another court against the composition.

Mr. Tetley, solicitor to the bank, moved a resolution accepting the composition, but a counter-proposal was made and carried, appointing Mr. Dyson, of the firm of Beaumont & Dyson, accountants, Huddersfield, trustee in bankruptcy, with the following as a committee of inspection:—Mr. H. Ellison, Cleckheaton; Mr. J. Smith, Siddal, near Halifax; Mr. E. Barlow, Huddersfield; Mr. J. J. Brooke (Henson, Dale & Co.), Huddersfield; and Mr. S. Bywater, Lowmoor.

The principal creditors are:—

	£ s. d.
Barlow, E., Birchencliffe, near Huddersfield ..	59 9 6
Bentley, S. R., Leicester	260 11 7
Bevan, H., & Co., London	157 2 5
Blamires, F. & H., Huddersfield	59 15 0
Bradford District Bank (Limited)	2,699 2 0
Broadbent, T., & Son, Huddersfield	30 0 0
Bywater, S. & H. A., Lowmoor	54 17 3
Crossley, G., Cleckheaton	6 8 8
Ellison, H., Cleckheaton	3,495 6 7
Ellison & Pouitt, Cleckheaton	108 11 10
England, W. P., & Co., Huddersfield	111 7 8
Farnley Iron Company, Leeds	22 0 0
Hanson, Dale & Co., Huddersfield	57 16 4
Keynon, J. E., Accrington	176 5 0
Norman & Piggott, Liverpool	41 9 2
Riley, J., & Sons, Accrington	265 15 6
Woolley, Sons & Co., Manchester	2 4 6

Re RICHARD OWEN, Read House, Llanfachreth, Anglesey, Chemist, &c.

THE first creditors' meeting of this debtor was fixed for January 17, at the Official Receiver's office, Crypt Chambers, Chester. The debtor having left the country before the receiving-order was made, and consequently, no statement of affairs being obtainable, the meeting was not held.

Re JOHN HENRY HEATH, 13 Streatley Road, Willesden, Chemists' Traveller.

THE failure of this debtor was announced last week at the London Bankruptcy Court, the receiving-order having been made upon the debtor's own petition.

EXTRACTS FROM THE REGISTER OF DEEDS OF ARRANGEMENT.

The following deeds of arrangement with creditors have been filed at the Bills of Sale Office, under the provisions of the Deeds of Arrangement Act, 1887. Some of these deeds are for the purpose of carrying out compositions with creditors (and such are specified below), but the great majority of them are "assignments" in the ordinary form, to a trustee or trustees, for the benefit of creditors. The Act referred to expressly provides that registration shall not give validity to any deed which is an act of bankruptcy, and there is no provision, in the Act, making any of these arrangements binding upon dissenting creditors.

Child, Herbert, 8 Monks Road, Lincoln, surgeon. Trustee: George Fillingham, 16 East Parade, Leeds, secretary of, &c. Date, Jan. 13, 1890; filed Jan. 18, 1890; unsecured liabilities, 760*l.* 7*s.* 8*d.*; estimated net assets, 100*l.*

	£ s. d.
Brown, Mrs. Nottingham	515 0 0
Naylor, H. J., Bradford	65 0 0
Oxon and Berks Bank, Oxford	25 0 0
Read & Son, Leeds	20 0 0
Reynolds & Branson, Leeds	12 7 6
Rider, J. C., Leeds	30 0 0

The General Supply Stores (Thomas Brown, trading as), 10 Dock Street, Hull, and at Keyingham, and 136 Freeman Street, and 7 Corporation Road, Grimsby, drysalter, grocer and provision merchant, and farmer. Trustee: Arthur Edgar Peasegood, Hull, chartered accountant. Date, Jan. 13, 1890; filed, Jan. 15, 1890; unsecured liabilities, 3,402*l.* 10*s.* 10*d.*; estimated net assets, 1,449*l.* 10*s.* 1*d.*; creditors fully secured, 409*l.*

	£ s. d.
Allison, E. & H., Hull	130 5 9
Allwood, Emma, Hull	100 0 0
Alpe, James, Hull	41 0 11
Anglo-Saxon Milk Company, London	17 3 8
Armglage, Miss, Haarlem	640 0 0
Berry, Wm., Manchester	13 12 0
Brown, Daniel, Hull	250 0 0
Brown, Daniel, Hull	300 0 0
Christian & Crowley, London	11 4 8
Colman, J. & J., London	28 15 0
Courteney, J., & Co., Leeds	26 4 8
Crawford, Wm., & Son, Leith	19 6 1
Downing, Arthur, Hull	12 9 4
Fox & Co., London	16 15 2
Gray, Dunn & Co., Glasgow	48 19 2
Hall, A. W., Lincoln	28 18 4
Hannay & Co., Manchester	14 13 0
Hollingsworth, J. D., Bradford	16 15 3
Hudson, R. S., Liverpool	16 15 2
Inland Revenue	12 10 0
Lamb, Chas., Withernsea	45 0 0
Nixey, W. G., London	19 19 0
North-Eastern Railway Company, Hull	20 17 10
Prescott & Bolton, Manchester	13 17 6
Rank, Jas., Hull	11 17 8
Reckitt & Sons (Limited), Hull	10 9 8
Roydhouse, W. C., Keyingham	11 1 4
Salt Union Company, Middlesbrough	11 19 8
Sohlogal, J. F. & V., Leeds	19 5 0
Shaw, Thomson & Co., Hull	11 3 8
Sheardown & Barker, Hull	14 18 9
Thirkett, I., Hull	13 12 6
Whitfield, M., & Sons, Hull	1,000 0 0
Wilkinson, J. & Son	63 3 7
Wood & Wainwright, Hull	11 3 0
Wright, Layman & Umney, London	17 17 0
Yates, Newman & Tapley, London	21 9 5
Young's Paraffin Oil Company, Hull	29 12 2

Gazette.

PARTNERSHIPS DISSOLVED

Dyson, G., Dyson, F., Brotherton, E. A., & Dyson, H., Wakefield and Leeds, manufacturing chemists.

Grant, G., & Milne, J. S., Padiham, Read, and Hapton, physicians and surgeons.

Lafarelle & Lyster, Coleshill, surgeons, apothecaries, and accoucheurs.

Stewart & Stafford, Nottingham, surgeons and apothecaries.

THE BANKRUPTCY ACT, 1883.

Receiving Order.

Turner, William John, Milton-next-Gravesend, mineral-water manufacturer.

First Meeting and Public Examination.

Howlett, Walker, Hill Street, Peckham, late of St. George's Circus, Southwark, surgeon's assistant—Jan. 31, 33 Carey Street, Lincoln's-inn Fields; Feb. 13, 34 Lincoln's-inn-Fields.

Adjudication.

Harrison, William Salisbury, late of Sunderland, medical student.

Notices of Dividends.

Edwards, William, Huddersfield, mineral-water manufacturer—first and final div. of 11*s.* 2*d.*, Jan. 31, Messrs. Haigh & Son's, New Street, Huddersfield.

Simpson, Harry Ernest, Richmond Road, Hackney, and City Road, E.C., physician and surgeon, carrying on business at City Road with William G. McFee, as Simpson & McFee—composition of 2*s.* 6*d.*, any day, Chief Official Receiver's offices, 33 Carey Street, Lincoln's Inn.

Whitham, Joseph, Miles Platting, chemical manufacturer, trading as Joseph Whitham & Co., Pendleton, dyer and printer, and as the Whitecroft Printing Company, Baxenden, galvaniser, also trading with T. Brayshaw, as Whitham & Brayshaw, at Manchester, and residing at Nelson—third and final div. of ¾*d.*, any day, Trustee's office, 2 Clarence Buildings, Booth Street, Manchester.

OUR COMMERCIAL BAROMETER.

SIR RAWSON W. RAWSON, chairman of the Commercial Committee of the Imperial Federation League, has compiled the following particulars concerning our foreign trade in 1889:—

Year 1889 compared with the Year 1888.

A.—Imports.

1. Tonnage of vessels entering United Kingdom has increased from—
   27,077,000 to 28,518,000 = 5·0 per cent.
2. Value of imports has increased from—
   386,582,000*l.* to 427,211,000*l.* = 10·5 per cent.
3. Average price per ton has increased from—
   14*l.* 6*s.* to 14*l.* 18*s.* = 4·2 per cent.

B.—Exports.

1. Tonnage of vessels clearing from United Kingdom has increased from—
   31,664,000 to 33,049,000 = 4·3 per cent.
2. Value of exports has increased from—
   297,885,000*l.* to 313,031,000*l.* = 5·1 per cent.
3. Average price per ton has remained stationary at 9*l.* 8*s.*

Readings for the Year 1889 compared with 1888.

1. The character of the year 1889 is one of uniformly moderate increase, with the exception of
   (*a*) Price of coal, which has advanced 21·3 per cent.
   (*b*) Price of gross exports, which has remained stationary.
   (*c*) Tonnage of exports, exclusive of coals, which is almost the same.
2. Imports have increased in volume 5·0 per cent.
   „ „ „ value 10·5 „
   „ „ „ price 4·2 „
3. Total exports have increased in volume 4·3 per cent.
   „ „ „ value 5·1 „
   „ have remained in price stationary.
4. Tonnage employed in the export of coal formed 58·4 per cent. of the total tonnage cleared; in 1888 it formed 56·8 per cent. The quantity of coal exported showed an increase of 7·4 per cent. compared with an increase of 10·2 per cent. in 1888. The increase in the first five months was sixfold that in the last seven. There has thus been a check to the previous rapid increase of this exportation.
5. The quantity of bunker coal showed an increase of 8·6 per cent. This affords some (a minimum) measure of the increase in the tonnage of steam—compared with sailing—vessels which cleared in 1889, as the increase of total tonnage clearing was only one half—viz., 4·3 per cent.
6. The increased price of coal advanced 21·3 per cent., but this affected the total value of exports by less than 1 per cent.
7. The tonnage clearing with exports, exclusive of coal, increased only 0·3 per cent., but the value of exports increased 4·1 per cent., which was caused by an advance in price, which figures as 3·9 per cent.
8. The value of United Kingdom produce exported increased 6·5 per cent.; that of foreign and colonial merchandise, 1·4 per cent.

As Regards Monthly Fluctuations.

The first four months and the last three have been the periods of greatest activity in the export trade both of British and foreign and colonial merchandise.

Exports in 1889 compared with 1888.

	British	Foreign and Colonial
January to April ..	Increase, 8·4 per cent.	Increase, 16·8 per cent.
May to September ..	„ 2·0 „	*Decrease*, 16·9 „
October to December ..	„ 11·1 „	Increase, 11·6 „

As Regards Description of Merchandise.

1. Of the ten groups of imports, as classified by the Board of Trade, all have increased except metals. This is shown in the following table, in which the groups are arranged according to the proportionate importance of each:—

Imports in 1889.

—	Proportion of total value	Increase in value of each group
	Per cent.	Per cent.
1. Articles of food and drink	37·7	7·9
2. Raw materials for textiles	21·4	13·4
3. Manufactured articles	15·3	11·2
4. Raw materials, other than above	10·2	19·0
5. Metals	5·0	Decrease 5·0
6. Miscellaneous articles	3·4	Increase 4·8
7. Animals, living, for food	2·4	34·0
8. Chemicals	2·0	6·4
9. Oils	1·7	10·7
10. Tobacco	0·9	40·8
Total	100·0	10·5

2. Of the ten groups of exports all have increased, as shown in a similar manner in the following table:—

Exports in 1889.

—	Proportion of total value	Increase in value of each group
	Per cent.	Per cent.
Produce of United Kingdom:—		
1. Yarns and textile fabrics	35·2	1·2
2. Metals and manufactures thereof, except machinery, &c.	13·1	10·2
3. Miscellaneous manufactures	10·5	6·6
4. Raw materials (chiefly coal)	5·5	24·1
5. Machinery and millwork	5·0	17·9
6. Apparel, &c.	3·7	2·0
7. Articles of food and drink	3·4	4·7
8. Chemicals	2·5	6·7
9. Animals, living	0·4	12·6
	79·3	6·5
10. Foreign and Colonial	20·7	1·4
Total	100·0	5·1

A GERMAN PHARMACIST IN THE EAST INDIES.

DR. A. TSCHIRCH, a Berlin pharmacist of more than German reputation, returned home to Berlin from an extensive tour through the British and Dutch East Indies in the autumn of last year, and has since been busy preparing an account of his travels in book form. Pending the publication of this work, the doctor has given a preliminary glimpse of his accumulated treasures hy a few articles in the *Pharmaccutischc Zeitung*, and a lecture to the German Society of Naturalists. Four of Dr. Tschirch's former pupils, now prospering as apotheker proprietors, when they heard of his projected journey, had competed for the honour of being allowed to prepare his

Medicine Chest,

and when the time of travel arrived the doctor thankfully hethought himself of these offers, and applied to one of the four, who, unfortunately, proved to he away on a holiday tour just at the period when his services would have been acceptable. Numher two was then approached, but he also was out of town, and so, singularly enough were the two remaining volunteers. Dr. Tschirch, therefore, had to set to work himself, and within a short time got together a most admirable and compact collection of medicines for use in the tropics. Quinine, antifehrin, antipyrin, rhubarb and Dover's powders in compressed tablets, arsenic granules, and morphia powders, dressings and antiseptics, opium and acetate of lead—nothing was forgotten except one thing, the very remedy which the traveller had occasion to use more frequently than any other—castor oil. This and quinine were the only two remedies which Dr. Tschirch used to any considerable extent. Like most Europeans, malarial fever attacked him upon his arrival in India, and although he used antipyrine when his temperature rose abnormally high—40° to 41° centigrade—to cause a rapid reduction, he is unstinted in his praise of quinine as the fever remedy *par excellence*. In well-stoppered vials the compressed tablets keep excellently in the tropics, and they are therefore very popular in India, though so high in price that it is a not inconsiderahle saving to bring one's own supply from Europe. As a curiosity it is recorded that the European apotheker at Bandong in Java, the centre of the largest cinchona plantations in the world, buys his quinine in compressed tablets from Berlin. Opium was used less often than any other remedy, although diarrhœa is a very common complaint among unacclimatised Europeans. But the Indian practitioners generally have a strong objection to the administration of opium and greatly prefer castor oil. The remedies against the bite of snakes proved quite superfluous, but ordinary wound remedies were in almost daily request, the moist heat of the tropics rendering the skin exceptionally sensitive.

A Genoa Pharmacy.

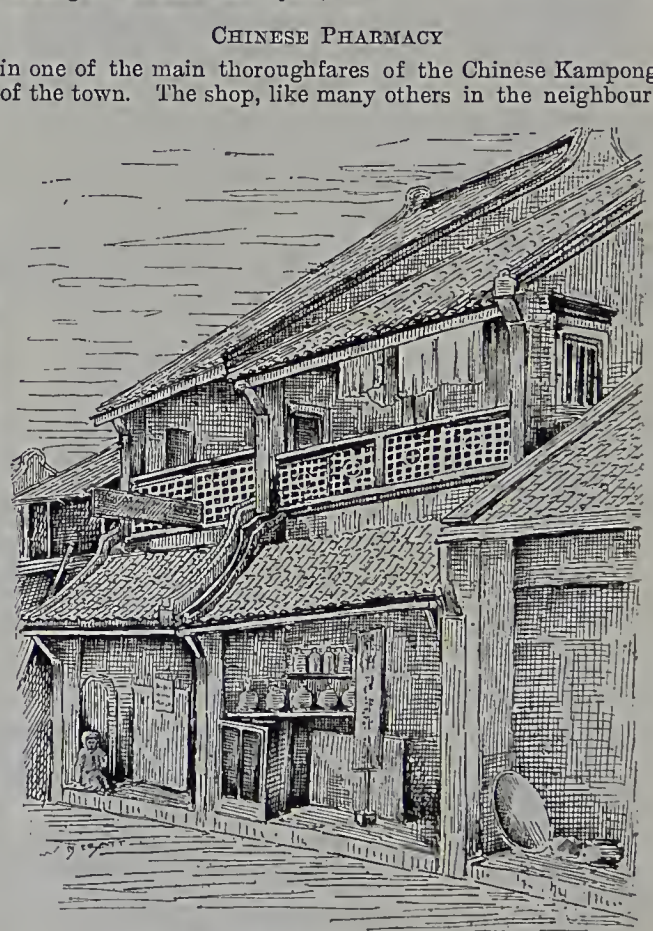
Dr. Tschirch carried with him the requisites for the exercise of his attainments as an amateur photographer, and the sketches with which this artiele is illustrated are made after photographs taken hy the traveller when he attempted to put his art into practice on his way out. In the Mediterranean he discovered that the gelatine of his photographic plates had become too soft for use, and that the latter could not be properly developed in the high temperature. The doctor, therefore, decided to use strong alcohol instead, and determined to lay in a stock of this drug at Genoa, where the vessel called on its journey. In the first Italian pharmaey entered for this purpose the order could not he executed, as the principal was absent and had taken the key of the alcohol cupboard ahout with him, hut in the next estahlishment the desired supply was ohtained, at the cost of fivepence, "cinquante centesimi" being the uniform charge in Genoa for all minor pharmaccutical purchases. When Dr. Tschirch revealed himself to the Farmacista as a colleague, the latter hecame excessively complimentary, and, with his three assistants, all dressed in the hlack Spanish cloaks which form the reeognised husiness attire of Italian pharmacists, insisted upon bowing him to the door of the estahlishment.

Chinese Singapore.

In Singaporc the traveller touched the soil of the tropics for the first time, and at once hastened to the botanical garden, after which he commenced his investigations of the the business part of the town, where he witnessed the shipping of huge quantities of pepper and Deli tobacco, learned how benzoin and indiarubber are sorted, and watched the bundling of rattan, the pressing of cutch, and the preparation of sago. There are over 200,000 Chinese in Singapore, and the Chinese quarter is by far the largest of the town. The horrible sweetish odour exhaled from the skins of the Chinese is at first a perfect torment to the European. It meets him in every direction, it adheres to his garments, is absorhed by the hair and whiskers, always moist in the heat of the tropics, and even the beds smell of John. The servants are Chinese, and so is the cook, the merchants and brokers in the Halls, the money-changers and coolies all are natives of the great empire, and even the men who pull the small carts—jinrikshas—in which the European can take a drive in the evening, are of the same nationality. These jinriksha boys are the most poverty-stricken and miserable of their people, carrying all their possessions with them in the dirty cloth which covers their loins, and sleeping at night on the curved shafts of their vehicles. Yet many of them contrive not only to save, but to hoard up wealth and return to China in a state of opulence which enahles them to dress in silks, keep thirty wives, and cheat the European at wholesale as they have done at retail in the days of their misery. The "dirty Chinaman" has developed into the "rich Chinaman," these two being the alternative epithets applied to people of their nationality by Europeans. In Batavia, where the Chinese colony is also an influential and numerous one, our traveller took an opportunity of visiting a "Roema obat Tjina," or

Chinese Pharmacy

in one of the main thoroughfares of the Chinese Kampong of the town. The shop, like many others in the neighbour-



CHINESE PHARMACY IN BATAVIA.

hood, was painted blue—the favourite colour of the Chinese—and built in two floors, the upper one slightly receding. The frontage was small, hut the house was of exceptional depth. The entire front of the building was occupied by the shop. An oblong sign bore the name and profession

of the proprietor in Chinese characters, and fiery-red placards were stuck against some packing cases, which formed a kind of partition between the shop and the street. These placards contained proverbs and New Year's wishes, as well as an invocation imploring the favours of heaven upon the establishment, "May many purchasers enter," and "May the five blessings descend here," the blessings in question being long life, wealth, peace, virtue, and a happy end. At the back of the shop, facing the street, stood a colossal image of the Chinese deity, Pe-Kong, before which was placed an altar. Besides this there were cupboards, shelves, and a dispensing counter, behind which three assistants, dressed in nothing but dirty trousers, were busy manipulating roots and herbs. One was handling a splendid sample of angelica root, which, with extraordinary dexterity, he was cutting up into slices of admirable uniformity of size, and quite thin enough to be used for a rough microscopic investigation. Number two was suspended by the hands on a kind of trapeze, while with his feet he moved the wooden handles of a large disc-shaped knife, thus causing it to revolve among a quantity of medicinal roots in a wooden trough. The third assistant, wearing the stereotyped Chinese smile on his lips, was occupied in coating large boluses, a form in which the Chinese love to administer medicine.

One cupboard in the pharmacy was devoted to the "specialities" of the house, most of which were found also to consist of large boluses. These are nicely painted in bright colours, or decorated with gilt letters, and placed in square boxes covered with flower-pattern silk. Four boluses are usually placed in each box. The outer coating is of Japan wax, within which the remedy proper is found in gilded globules of soft vegetable extract, with a mineral admixture. Minute directions for use accompany each bolus. The remedies are nearly all aphrodisiacs, of which the excessively sensual of the Chinese appear to stand in constant need. These boluses are very dear, the doctor being charged two florins, or 3*s.* 4*d.* apiece for them.

Buying Smoking Opium.

From the Chinese pharmacy the doctor decided to make his way to an opium-kit, and in pursuit of that purpose entered one of the numerous shops where opium is sold. In answer to his inquiry for "Afioen" the Chinese proprietor of the establishment showed him several boxes of the drug, containing from five to twenty-five grains, and for which he asked from one to four Dutch florins. The boxes were wrapped in thin Chinese paper, the folds of which were secured with a large red seal bearing the Dutch words, "Opiumpacht, Batavia, 1888," and their Chinese equivalent. The opium tax is one of the largest sources of income of the Dutch Government in India; in fact, without it the administration of the Dutch colonies could not be continued on the present system. In 1887, out of a total revenue of 130 million florins, 19 millions were derived from the drug. Only the coffee tax yields a larger amount—26 millions in 1887. These figures show the extraordinary extent of the opium-smoking habit in the Dutch Indies, in spite of the costliness of the drug, the tax being 100 florins, or 8*l.* 6*s.* 8*d.* per catty of $1\frac{1}{3}$ lbs. The opium duty is farmed out to certain Chinese, who are among the wealthiest merchants in the colony. Of the process of opium smoking itself the doctor gives a long description, which we are compelled to condense.

The Opium-kit.

A Chinaman of youthful age, but a confirmed smoker, who had entered the shop along with himself to purchase a supply of the drug served him as cicerone to the smoking establishment, where, upon removing the mat serving for the door, they found themselves in a dark and evil smelling apartment, in which, on low bamboo couches, a few dirty smokers lay expectorating, masticating, or asleep, while a few diminutive lamps on the floor only served to deepen the prevailing gloom. The "boss" ushered the doctor and his guide into the saloon reserved for more opulent visitors, an apartment separated from the general room by a tattered curtain, and only one degree less dirty than the former. But the couches in this "saloon" were covered with a coarse cloth, furnished with pillows and surmounted by draped testers. On one couch a wretched Malay was sleeping off his excesses, but a sharp kick from the "boss" sent him muttering into the common room. That worthy then furnished the doctor and his guide with low bamboo seats, and the young Chinaman stretched himself out on the bed, and, being presented by the doctor with a box of opium which he had purchased, proceeded to prepare the drug. First he pushed a needle into the opium mass, held it over the flame of the little lamp, and having softened it, commenced slowly to move round the needle. A much-used opium pipe, consisting of a bamboo stem with a horn mouthpiece, and furnished with a metal bowl, with an exceedingly small opening, was then given to him, and into it he introduced the soft opium, carefully pricking a hole through the mass with the needle. The Chinaman then placed the pipe to the flame, slowly sucking in the smoke—there was very little of it—swallowed the greater part, and allowed the remainder to escape through the nostrils. Within a few minutes the drug began to exert its potency and the smoker, closing his eyes, leant back on the pillow.

The Toekang Rempah-Rempah,

or native Japanese pharmacy, is really more a shop for the sale of raw drugs than for their preparation into medicines. The native doctors in Java, in fact, keep this branch of the business as much as possible in their own hands, and nearly every one of them has his own particular nostrums. But the reputation of the native medicine-men has suffered much since the Dutch practitioners commenced to pay some attention to afflicted natives. The native pharmacist, therefore, finding a large part of his occupation gone, has added "outside lines" to his stock, and the one to whom the doctor paid a visit of investigation did a trade in petroleum lamps, cocoanut spoons, native hats and slippers, glass and chinaware, matches, perfumery, and so forth. Of the European pharmacies in Java and the Dutch-Indian medical practitioners Dr. Tschirch speaks in the highest terms of praise. He is especially complimentary to the Dutch military surgeons, whom he found to be gentlemen of excellent scientific training, and whose treatment of patients could not be improved upon, he thinks, by any class of surgeons in Europe. The doctor's first visit into a Dutch pharmacy, the "Bataviasche-Apotheek" shown on the accompanying illustration, was to



DUTCH PHARMACY IN BATAVIA.

purchase the needed dose of castor oil. The visit took place early in the forenoon, and, as the visitor had just returned from an early walk, his attire was rather dusty. Moreover, he came on foot and without a servant. As it is quite against the rules of etiquette pertaining in the Dutch-Indies for a European to personally buy his requirements at a shop in the morning hours, the proprietor mistook the doctor for some half-caste, or European of the lowest type, and, therefore, remained quietly seated in his rocking-chair in the adjoining room.

The European Pharmacy.

The assistant could understand neither French, English, nor German, and the doctor had therefore considerable difficulty in explaining the simple object of his visit, but he succeeded at last, and, while the assistant despatched a Javanese servant to fetch the medicine, Dr. Tschirch improved the time by looking round the establishment. The

European houses in the Dutch Indies are all built upon the model of the native dwellings. The roof is projecting, and forms a verandah supported by pillars along the front of the building. The European and Chinese houses are stone-built, the former are usually whitewashed, the latter are almost always painted blue. At the entrance of the pharmacy stood a few whitewashed earthenware flower-pots, containing some wretched roses and motley-leaved crotons. The verandah served as reception room, a few small tables and rocking-chairs forming the only furniture. To the left was the office, to the right the private rooms of the proprietor, large, lofty, and furnished with Indian comfort. Immediately behind the verandah was the pharmacy, an apartment of vast dimensions and delightfully cool, the only light being received through the verandah. For his dose of 5 drachms of castor oil the doctor was charged 5*d.*, though afterwards, when he sent his servant for a like dose, in the evening, he had to pay 10*d.* The doctor was compelled to use a large variety of medicines during his stay in Java, and found the prices moderate on the whole, the usual charge for decoction of cinchona and simarouba, a very popular remedy in those parts, being 1*s.* 8*d.* But as everything is sold on credit in India, and bills are only made out at the end of the month it is not an easy matter for a traveller who does not stay the month out to be afforded the privilege of paying his bills. From Batavia the doctor visited the Buitenzorg Botanical Gardens, and a number of cocoa, vanilla, tea, coffee, gum benjamin, pepper, and nutmeg plantations, as well as the cinchona plantations in the Preanger, and then returned to Singapore, where he no sooner had set foot than a fresh attack of malarial fever compelled him to call in at a pharmacy.

The Singapore Pharmacy.

The establishment thus favoured was the largest in Singapore. The proprietor is a German, and he carries on his business under a certain arrangement with a medical man, also a German. The physician's consulting apartment adjoins the chemist's dispensing room. The doctor sees his patients at the chemist's, and messages may be left for him there. No qualification is required to open a chemist's business in Singapore, and, according to Dr. Tschirch, the Singapore member of the craft is likely in ten year's time to be able to return to Europe as a wealthy man, in the Indian meaning of the word. The Singapore pharmacy opens at nine and closes at five, in common with all business places in the city. Outside these hours it is impossible to obtain any medicine, and patients must just suit themselves to this arrangement. About 9 A.M. a swarm of merchants, officials, and others pours into the city from the bungalows situated on the charming hills around, and the streets are alive with vehicles and riders. At five o'clock everything closes again, and the stream of human beings takes its homeward course. The extensive premises of

The Colombo Apothecaries' Company

in Ceylon are in every respect a typical colonial business establishment. The head-quarters of the firm are in London.



THE APOTHECARIES' COMPANY'S ESTABLISHMENT IN COLOMBO.

The Colombo business was established by a medical man, a pharmacist and a financier. The fine two-storeyed building, situated in the most favourable part of the town, soon secured a considerable amount of trade; a dentist's department was added, then a photographic department, and finally a general bazaar. The latter business has now developed to such an extent that Dr. Tschirch had some difficulty in discovering the department from which the establishment originally derived its name. But although the arrangements were rather miscellaneous to German eyes, the doctor hastens to add that he could not find that there had ever been any complaints about the management of the business in any particular department.

Benzoin and Cinchona.

Recently plantations of gum benjamin trees have been established in Java, near the Salak volcano, but until the present time no benzoin has been obtained from there. The benzol resin does not, as is generally believed to be the case, pre-exist in the tree. It is in reality the product of a disease, and can only be obtained by making cuts into the bark, when it exudes. The bark of the tree is quite devoid of odour and does not contain any benzoic acid. The cinchona trees are described by the doctor as "small and unimposing trees." When the bark is freshly stripped it is quite white inside, but it oxidises almost immediately upon exposure to the air, and the tannic acid of the cinchona is changed into cinchona-red. The stripped bark is usually sorted at once, and put up to dry in the sun on wooden floors supported on rollers. If rain sets in the arrangement on which the bark is spread out to dry is at once rolled into a covered shed. Artificial heat is also used to dry the bark. In Java the bark is prepared for shipment by pressing it into bags, by which the volume is considerably reduced. In Ceylon it is pressed by hydraulic power, and thereby reduced to one-fifth of its original bulk.

FRANGULIN.

At a recent meeting of the Chemical Society, Professor T. E. Thorpe, F.R.S., and Mr. H. H. Robinson, M.A., described how they prepared the glucoside frangulin from *Rhamnus frangula* bark by first extracting with low-boiling petroleum to remove fat, and next with methylated spirit, which removed the frangulin, together with resins, &c. To this extract lead acetate was added to precipitate tannins, and after removing the excess of lead in the filtrate by means of sulphuretted hydrogen, the frangulin was obtained from it. 14 lbs. of the bark gave about 5½ grams of frangulin.

Seven analyses were made of four different portions of frangulin which had been purified by different methods, and the results agreed with one another and corresponded to the formula $C_{22}H_{22}O_9$. For every analysis the frangulin was dried at 120° until constant.

The frangulin was hydrolysed and the yellow product insoluble in water was analysed, in two cases after crystallising from alcohol and drying at 120° until constant, and in two cases after crystallising from benzene and drying at 180°. The results corresponded to the formula $C_{15}H_{10}O_5$. The product was directly compared with some emodin from rhubarb, and was found to give the same colour reactions, and the authors are satisfied as to its identity with that substance.

A phenylhydrazine-derivative of the product soluble in water, and which has the power of reducing Fehling's solution, was prepared, and compared with that obtained from glucose, and was found to possess quite different properties; hence it is concluded that the soluble product of the hydrolysis is not glucose. It is the subject of further investigation by one of the authors.

It is now known with certainty that the cholera bacillus is dangerous only to those persons whose stomach is not in a healthy state, and jeopardises life only when it passes into the intestines. A healthy stomach will digest the bacillus, and therefore it does not reach the intestines in a living state.

BRITISH AND FOREIGN CONSULS' REPORTS.

British India.

Quinine. The total annual consumption of sulphate of quinine in British India (including that furnished by the Government plantations ?), is estimated at about 270,000 oz.

France.

The Bordeaux Dye-wood Trade. There are fifteen dyeing establishments in the city of Bordeaux, giving employment to some 400 working people, and importing a considerable amount of exotic colouring woods from America, the value of the imports being from 700,000*l* to 800,000*l*. The principal dye-wood employed is campeachy, very rich in colouring matter, and imported from Yucatan, the Antilles, Hayti, and South America. Its principal colouring is a vinous red, slightly shading to blue, but varies according to the acid substances employed, and produces violet, black, red, yellow, grey, &c. Yellow woods are classified according to the countries from whence imported. That from Cnba is very valuable, and is known by the fine orange and yellow veins running through it, which also denote the quality. It is principally employed in silk-dyeing. Yellow wood from Mexico, Colombia, Cuba, Hayti, and Jamaica principally prodnces yellow, brown, and green. The yellow wood of Tuxpan, Gulf of Mexico, is more esteemed than that coming from Tampico, which is porous. Both prodnce a bright yellow colour. While all the yellow woods of the Antilles are very good for dyeing purposes, care is taken to choose only those of a decidedly bright colour. Pernambnco wood—commonly called Brazil wood—is found in the environs of Pernambnco, where the trees grow to immense height. Althongh of very knotty structure, it possesses a most beantiful colonr. The species known as Pernambuco redwood is entirely nnder the control of the Brazilian Government. The price is excessive, varying from 35*s*. to 60*s*. per cwt., owing to which bnt a small quantity of it is imported into France. The colonr is a beautiful red. There are several species found in the West Indies, Central America, and the Antilles. This wood is either of a reddish-yellow or dark red, which changes to a dark brown when exposed to the air. The tints derived from it are light red and amaranth. It is also employed to produce a more positive madder-red, and to apply colours on wool, silk, and cotton. The colonrs, however, are not durable, bnt can be rendered more stable by steaming, or when in mixing, by the addition of gall, snmac, or other astringents. Redwoods are divided into two classes—extractive and non-extractive. The extractive species are imported from Brazil, Chili, Colorado, Nicaragua, Santa Martha, Rio Grande; and include, also, the Sapan wood from Manilla, Siam, and the Antilles. Chili and Colorado woods are especially esteemed; the colour is pale rose or brownish rose. The importations from the Antilles arrive generally full of sapwood. The colour is pink, deepening to violet. Bahia wood, of good quality, is violet-red in colour. The Sapan wood, of Manilla and Siam, imported *viâ* India, is pale in colour, but develops a beautiful bright red. Non-extractive woods are sandal, calcatonr, and camwood. The characteristics of these species are that when pnt into either cold or hot water they do not change colour, nor impart their colour to the water. It is only when bronght into contact with caustic substances that they yield their colouring matter

The Decay of French Trade. The French Government have recently published some elaborate statistics of the trade of the country during the last twelve years. The figures show that, though since 1877 there has been some improvement, the trade of the country is retrogressing rather than advancing.

Comparing 1877 with 1888, it is found that the French export trade to all European countries cxcept two has very largely decreased, the largest falling off having occurred with Italy, Russia, Germany, and England. Belgium, Turkey, and Spain show a slight increase. To America there is an increase on the whole, for while France is losing gronnd in Sonth and Central America (except the River Plate), she is gaining in the United States and Mexico. Her exports to British India have advanced from 8·4 to 12 million francs, and to Australia from 1·4 to 6 millions.

Germany.

Profits in Chemical Industry. The German chemical industry has been on the whole in a very flourishing condition during the year 1888. According to recently published statistics the number of factories falling under this description has increased from 4,235 in 1887 to 4,464 in 1888, that of the average number of hands employed from 82,211 to 84,315, and the total of the wages paid from 62,710,380 to 65,644,013m., the average wages of each hand having been 757·13m. in 1887, and 773m. in 1888. The dividends declared by the chemical factories carrying on business as limited liability concerns during the last five years have been as follows:—

—	1884	1885	1886	1837	1888
	Per c.	Per c.	Per c.	Per c.	Per c.
Alkali and heavy chemicals	6·8	5·77	5·79	6·62	7·45
Pharmaceutical and fine chemicals ..	13·26	12·63	14·14	16·28	13·81
Coal tar products	11·05	7·03	9·94	13·25	15·44
Explosives..	7·84	10·8	16·46	14·38	15·58
Artificial manures..	6·21	3·07	2·51	5·32	7·97

The following table shows the proportion of profits of the limited companies during the last five years:—

Year	No dividend declared	Under 5 per cent. dividend	5 to 10 per cent. dividend	Over 10 per cent. dividend
1884	25 per cent.	23 per cent.	33 per cent.	19 per cent.
1885	34 ,,	22 ,,	28 ,,	16 ,,
1886	38 ,,	24 ,,	18 ,,	20 ,,
1887	38 ,,	12 ,,	30 ,,	20 ,,
1888	32·5 ,,	16·25 ,,	26·25 ,,	25 ,,

Honduras.

Packing of Goods. It appears that a good deal of the progress made by the Germans in their trade with Central America is due to the attention paid by them to the packing of their goods. The cost of goods, say, from Europe to Honduras, is exactly doubled by freight, duties, and exchange, and as the Customs charge duty on the gross weight of the packages, it is of the utmost necessity to pack the goods in bales or cases combining strength with lightness.

Another important factor is that, owing to the absence of railroads, goods have generally to be carried by mule, and therefore each package should not exceed from 100 lbs. to 125 lbs. in weight.

The habit of charging an enormous percentage on first cost extends to the smallest articles. For example, a bottle of ink, worth 5 cents in the United States, sells readily in Central America for 25 cents; an ordinary sheet of letter-paper, 2 cents; sulphur, 75 cents per lb.; quinine, $4 per oz., &c.

In most places of Central America a long time must necessarily intervene between the sending of an order for goods and their receipt. If they arrive at the port in the wet season, they are likely to lie there for weeks, before mules can be obtained to carry them to the interior, especially if the packages are of bulky, heavy, or inconvenient shape. Sometimes goods of awkward shape have lain at the port more than a year awaiting transportation. Six months may probably elapse between the mailing of an order for goods from New York and their receipt. These facts serve to show why merchants in Central America require long credits.

United Kingdom.

Belfast Aërated Waters. The manufacture of aërated waters, says the French Consul, is now one of the most prosperous industries of Belfast, and the waters are being shipped in very large quantities to foreign countries, cspecially Canada and Australia. The exports of aërated waters from Belfast have been as follows:—In 1884, 7,018 tons; in 1885, 6,421 tons; in 1886, 5,960 tons; in 1887, 6,583 tons.

Trade Report.

Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 Cannon Street, E.C., January 23.

BUSINESS has been very quiet this week on the whole, and complaints of the absence of orders are pretty general. The drug auctions were light to-day and not particularly interesting, but the proportion of goods sold was somewhat larger than usual, though in many instances low prices were accepted in order to get rid of parcels. The changes in the markets since our last report have not been very great. In chemicals, quinine has been rather easier, though it closes somewhat firmer again; refined camphor is lower, though the crude drug remains as firm as ever. Cream of tartar and tartaric acid are slightly easier, morphia and lithia salts rather higher. In drugs, Cape aloes are decidedly dearer, Curaçaos sold cheaper again; Sumatra benjamin, buchu leaves, and croton seed are lower; castor oil has also declined. Senna, galls, menthol, and citronella oil are easier; eardamoms are much cheaper. Opium, guinea grains, and musk seed are higher, and ipecacuanha is very firm. In drysalteries, gambier is higher, but shellac rather easier. Benzol and soda crystals higher.

Trade in the United States.—Our New York correspondent writes uuder date of January 10:— Wholesale drnggists are receiving large orders from retailers owing to the epidemic, and some are working night and day. Half-a-million ounees of quinine have been sold for present and forward delivery since January 1. The agent for the antipyrin manufaeturers distributed his last consignment of 50,000 oz. immediately on receipt, and at preseut he has no stoek. The depletion of stock among retailers is likely to develop a boom in the drug trade. There is a movement in opium, with a slight advanee, although priees are below London. Direct orders to Smyrna are being cabled to-day.

The Weight of Raw Camphor Contracts.—A circular has been sent ronnd to all European camphor-refiners by a firm largely interested in that article, in which attention is called to the somewhat loose manner in which contracts are now made for crnde camphor for shipment from Japan or China. The present terms of eontract are all in favour of shippers, and refiners therefore are at a loss to foresee the final result of their operations. Thus with a rising market, as at present, the "5 per cent. more or less shipping weight clause" means that the shippers always send 5 per cent. less weight than contracted for, the loss in weight on the way reaches occasionally to 15 per cent., and the actual quantity delivered is further reduced by the unusually damp condition of the eamphor when landed. When the market is drooping, however, the buyers must expeet to receive 5 per cent. more shipping weight than the quantity contraeted for, and parcels may turn out to have made no loss in weight from Japan or China to Europe. The firm therefore propose the adoption of the following resolution:—"In future the Enropean refiners of camphor engage themselves only to eontract crude camphor forward as long as their sellers aecept the condition of 5 per cent. more or less delivered weight in Europe."

Acids.—*Citric* remains very quiet, business must be pronounced exceedingly dull. Prices range at from 1*s.* 3¼*d.* to 1*s.* 3½*d.* in the second-hand; makers ask a little more than that. *Oxalic* is quiet at 4*d.*, less £0 per cent. but we do not hear of any contracts. *Tartaric* quiet and easier at from 1*s.* 2⅝*d.* to 1s. 3½*d.*, according to position and brand.

Aconite Root.—For 14 bales of Japanese root 22*s.* per cwt. was paid at to-day's auctions, which is 2*s.* more than the price obtained at the last sales.

Aloes.—Of *Cape* aloes, 15 cases offered and all sold at an advance of 2*s.* Fair to good fair hard bright, at 29*s.*; good hard, slightly drossy, at 26*s.* 6*d.* per cwt.; subject to seller's approval, and softish, at 25*s.* per cwt. *East Indian* kinds were largely represented in the lower qualities, and the total sold amounts to 77 packages out of 121. Very low black *Socotrines*, at 10*s.* per cwt. *Zanzibar hepatic* in skins, fair pale, at 5*l.* 2*s.* 6*d.* to 5*l.* 5*s.*; darker, from 75*s.* to 92*s.* 6*d.*; low, at 17*s.* And in tins and kegs, dark to fair, at 41*s.* to 82*s.* 6*d.*; in bags, good, at 110*s.*; and one case, very soft, weighing 4 cwt., all at 6*l.* *Curacao*: The large supply of 457 boxes and 40 gourds sold to the extent of 332 of the former, and 9 of the latter, at a further heavy decline; in cases, good livery, at 70*s.*; and black capey and part drossy, from 8*s.* to 22*s.* per cwt.; in gourds, good fair livery, at 45*s.*

Ambergris.—Fine qualities remain exceedingly scarce and bring very high rates. At to-day's sales a 3-oz. tin of fine flavour and good colour sold at 160*s.* per oz.; another parcel of 2 tins was bought in, one at 180*s.* per oz.

Anise.—In this day's sales 45 bags *Russian* seed were offered, of which 20 sold at 18*s.* 76 packages *Spanish* bought in at 28*s.*, and 10 *Italian* at 26*s.*, for whieh 22*s.* was bid and refused. Chinese *Star-anise* not available.

Annatto.—Several parcels were offered to-day, but the greater part was bought in without mention of priee. Of nine bales bright *seed* from Ceylon, five sold at 3½*d.* per lb. Three barrels dark seed, imported *viâ* New York were also disposed of at 1*d.* per lb. For 10 baskets dark Pará *Roll* no buyers could be found at 9*d.* per lb.

Arsenic.—Very firmly held. For best white powder 13*s.* 3*d.* to 13*s.* 6*d.* per cwt. is the price.

Balsams.—*Copaiba.* Reports from New York come exceedingly firm, and the market there is said to be praetically bare of genuine Maranham and of Pará varieties. Good to fine Maracaibo is quoted at 2*s.* 8*d.* to 2*s.* 10*d.* per lb, "e.i.f." terms. *Peruvian* balsam is also quoted higher up to 4*s.* 4*d.* "c.i.f." terms in New York. *Tolu* is quoted at 1*s.* 3½*d.* "c.i.f." from New York, where the arrivals are said to be accumulating. Seven eases were offered at auction here to-day, and one lot rather soft and watery sold at 1*s.* 3*d.* per lb.

Benzol has further advanced, 90 per cent. being quoted betweeu 3*s.* 10*d.* and 4*s.*; 50 per cent. up to 3*s.* 1*d.* to 3*s.* 2*d.*

Bleaching-powder remains firmly held at 5*l.* 5*s.* to 5*l.* 10*s* on the Tyne; London prices fully 20*s.* higher than those.

Borax quiet, and not quotable above 28*s.* 6*d.* in the second-hand; makers' prices unchanged.

Buchu.—There was very little offered to-day, a few bales round leaves sold at rather low prices, 2½*d.* for somewhat dull and stalky to 2¾*d.* for fair. A bale of spurious was also offered without reserve, but no bids were made for it, not even 5*s*, for the whole.

Calabar Beans.—One bag sold at 10½*d.*, which is a good price, the article being quoted at about 10*d.* fair quality privately.

Calumba.—130 packages were offered to-day, but the sale of only one parcel was proceeded with; some small to bold sound washed yellow root brought 30*s.* per cwt., and a parcel of small, dark, and wormy root was apparently sold without reserve at from 8*s.* to 9*s.* per cwt.

Camphor (Raw).—We note arrivals of 156 tubes this week, but practically the whole of it has gone into eonsumption. On the spot there is searcely anything offering, though we hear of further small retail sales on the spot at 180*s.* per cwt. For forward delivery, 200 piculs *Japan* are reported to have changed hands: December-January shipment, half at 135*s.*, and the second half at 137*s.* 6*d.*, c.i.f. terms, which is a slight advance on last week's rates. The general opinion seems to be that the article is as firm as ever, and no further arrivals are said to be expected until April. Private letters from Japan received here this week state that camphor trees have become so scarce that it will take very

many years before supplies will again be procurable at the same scale as a few years ago.

CAMPHOR (REFINED).—The market has been quiet, but steady, and some sensation was created by the English refiners suddenly reducing their prices for bells from 1*s.* 10*d.* to 1*s.* 8*d.* per lb. It is now said that it was owing to the undersselling of German-refined camphor in second-hand, which is said to have been at one time offered as low as 1*s.* 6*d.* per lb., but we cannot trace any offerings at that rate, though we know of some from 1*s.* 8*d.* upwards. At present the German makers quote about 1*s.* 7½*d.* At auction to-day five 5-cwt. casks of German, newly imported, were offering for sale, but the best offer made was 1*s.* 5*d.* per lb., the whole was then bought in at 1*s.* 8*d.* per lb. nominally, though 1*d.* less might perhaps be acceptable.

CARDAMOMS.—Another very heavy supply was put up for sale to-day, viz. 417 packages, of which 250 were sold at an average decline of 3*d.* per lb. The variety was a much better one this time than on January 9, and the prices paid range as follows:—Good bold pale *Mysore* at 2*s.* 10*d.*, fair ditto with a few brown at 2*s.* to 2*s.* 2*d.*, small ditto at 1*s.* 8*d.* to 1*s.* 9*d.*, lean bold at 1*s.* 7*d.*, smaller at 1*s.* 2*d.*, and small and shelly at 9*d.* to 11*d.* *Ceylon Malabar*: Bold fair pale at 1*s.* 8*d.* to 1*s.* 11*d.*, brownish ditto, fairly heavy, at 1*s.* 6*d.* to 1*s.* 7*d.*, smaller at 1*s.* 3*d.* to 1*s.* 5*d.*, very small to small at 9*d.* to 1*s.* 1*d.*, shelly at 9*d.* to 10½*d.* Seeds of Mysore and Malabar at 1*s.* 6*d.* to 1*s.* 7*d.* per lb.

CASCARA SAGRADA.—In London the nearest quotation comes to 70*s.* per cwt, landed terms, but the article is a dead letter at present. From New York, also, a very dull market is reported, owing to the entire absence of any foreign demand, but the stock of fine thin bark appears to be in comparatively few hands, and it is thought that if any orders of importance were to come in prices might soon begin to move upwards.

CASSIA FISTULA.—10 cases pulp from Amsterdam, each of two 76-lb. tins, were bought in at 20*s.*; the limit is said to be 17*s.*

CINCHONA.—The supply offered to-day was very slight, and included scarcely anything worth mentioning. Some good bold bright *Maracaibo* bark was quoted at 7*d.* per lb., and was bought in at 9*d.*; thin brown *Huanoco* quill also bought in at 10*d.* per lb. Thirty-five serons small and dusty, hard *Pitayo* held at 3*d.* per lb. The following table of arrivals of bark in London, according to origin, shows the remarkable growth of the cinchona plantations in Bolivia, from which by far the greater part of the calisaya bark now received here is procured. Arrivals of bark in London:—

		South American		East India and Java
		Calisaya	Other sorts	All sorts
1889	.. .. packages	9,552	455	54,545
1888	.. .. „	7,810	1,028	61,849
1887	.. .. „	7,190	2,068	60,603
1886	.. .. „	3,979	6,547	61,541
1885	.. .. „	2,599	2,688	55,367
1884	.. .. „	2,823	15,070	39,818
1883	.. .. „	2,774	51,006	31,330

CIVET.—Ten horns were again bought in at 8*s.* 6*d.* per oz.

COCA LEAVES.—It is said that large quantities have lately been taken out of the market in New York for European account, and that at the opening of the year the New York stock was only 35,000 lbs. against 45,000 lbs. at the beginning of 1889. In Peru prices are high, but from New York quotations are 1*s.* 1*d.* to 1*s.* 2½*d.*, "c.i.f." terms, for good to fine dark green *Huanoco*, and between 9*d.* and 11*d.* per lb. "c.i.f." for light green leaves. London quotes 1*s.* 3*d.* per lb. for good Huanoco.

COLCHICUM.—*Seeds* are held at 2*s.* 6*d.* per lb. At to-day's auctions four bags fair root, in thin slices, were bought in at 85*s.* per cwt., 10*s.* less being suggested as the price.

COPPER (SULPHATE) steady and firmer at 24*l.* on the spot.

CREAM OF TARTAR has further declined; best white first crystals at 106*s.*

CROTON SEED.—There was a good supply of this article at to-day's auctions, and about 70 bags were sold at very much easier rates than have been quoted privately of late, the decline being about 10*s.* per cwt. Fair pale and dull mixed seeds brought 14*s.* 6*d.* to 16*s.* 6*d.*; ordinary dark to dull, 7*s.* to 12*s.* 6*d.* per cwt.

CUMIN SEED.—Of 68 bags, 9 low *Mogador* sold at 15*s.*, and 14 bags fair *Malta* sold at 24*s.* 6*d.* per cwt.

DAMIANA LEAVES.—At to-day's sales 8 bags stalky greenish yellow and broken leaves sold at 9*d.* per lb. From New York the price comes at 7*d.* to 8*d.* per lb. c.i.f. terms, which is cheaper than any former price on record.

DRAGON'S BLOOD.—One case exceptionally fine small to medium round block of fiery colour sold at 12*l.* 10*s.* per cwt., four cases fairly good block brought 5*l.* 5*s.*, and 10 cases, low pale blocky glassy lump, without reserve, at 40*s.* to 42*s.*

ERGOT OF RYE.—Two casks of rather small *Spanish* were bought in at 1*s.* 8*d.* per lb. to-day; the nearest price is 1*s.* 5*d.* per lb. for this variety, *Russian* 1*s.* 3*d.* to 1*s.* 3½*d.*

FENNEL SEED.—Of fifty bags ten were sold at 15*s.* per cwt. to-day.

GALANGAL.—Nine bales red damaged sold to-day at 12*s.*

GALLS.—There has been very little business this week. Most of the holders of Turkey galls have reduced their quotations somewhat, and 55*s.* per cwt. would now probably buy good blue *Bassorah* galls. *China* galls very quiet; on the spot, 75*s.* per cwt. is still nominally asked for fair ordinary shape, but we are not sure that an offer of 73*s.* would be refused.

GAMBIER.—*Block* on the spot is worth 28*s.* per cwt., and for arrival the prices quoted are Dec.-Jan. 27*s.* 3*d.*, and March-April 26*s.* 9*d.* per cwt. Of *Cubes*, 426 bags were offered in Tuesday's sales, and all bought in; but since then several lots found buyers at 42*s.* for best free cubes.

GAMBOGE.—Nothing of good quality was offered to day; 3 cases rather dark pipe, partly run and very damp, sold at 10*l.* 10*s.*; and 3 cases ordinary dark damp, ricey and cakey, at 9*l.* 7*s.* 6*d.* to 9*l.* 12*s.* 6*d.* per cwt.

GUARANA.—Three cases of good usual quality were offered to-day, but could find no buyers at 5*s.* 6*d.* per lb. From America there are no reliable quotations; the stocks in first-hand have been all cleared out.

GUINEA GRAINS.—For 5 bags of fair quality 35*s.* was refused at to-day's sale, the lowest price acceptable being said to be 40*s.* per cwt.

GUM AMMONIACUM.—Two cases good, coarse, pale clean siftings sold at 30*s.* per cwt. without reserve, and 2 other lots very small seedy siftings at 7*s.*, and dark grey ditto at 6*s.* per cwt.

GUM ARABIC.—70 packages of various descriptions were offered, but only 1 case sold small clean Turkey grain at 13*l.* 5*s.* per cwt., which was cheap. Picked Aden, fairly uniform in quality, bought in at 120*s.*, but much less would buy the bales brought under the hammer to-day.

GUM BENJAMIN.—There was a very small show in comparison with last sales' supply, and the whole offered to-day consisted, with the exception of 24 cases *Siam*, of second *Sumatra* gum—viz., 62 cases, of which 27 found buyers at a reduction of about 5*s.* Fine almondy seconds at 8*l.* 15*s.* per cwt.; good fair, with very narrow border, at 7*l.* 2*s.* 6*d.* to 7*l.* 5*s.* *Siam* siftings hard block bought in at 5*l.* 10*s.* to 10*l.*, and 7*l.* 5*s.* bid for the latter, being the better quality.

GUM ELEMI.—Only 8 cases fair, good pale quality, which were brought in at 45*s.* per cwt.

GUM GUAIAOUM.—Only one small case of 60 lbs. good, glassy block sold cheaply at 2*s.* 2*d.* per lb.

GUM MYRRH.—Of 50 packages, 19 were sold, partly without reserve; good fair native picked at 5*l.* 10*s.*; low pickings at 25*s.*, and ordinary siftings at 15*s.* per cwt. None of the usual Aden sorts were offered to-day, for which we quote nominally from 80*s.* to 90*s.* per cwt., according to quality.

GUM SANDARAOH.—The new crop is in good demand especially for the United States. The price ranges from 86*s.* 6*d.* to 92*s.* 6*d.* for fair to good quality.

HONEY.—Of 68 kegs *Chilian*, 30 of the old crop are held at 40*s.* per cwt.; the remainder of the new crop was not landed in time. 6 barrels *Jamaica* sold at 40*s.* to 41*s.* for fair half-candied brown. It is said that this year's Californian crop has been very deficient in the best pale grades, though the pale amber honey is of very good quality. There is a good demand in America, especially for the finer grades.

IODINE.—No price has been fixed yet, and quotations are entirely nominal; all *iodides* the same.

IPECACUANHA.—Of 64 packages offered to-day 45 sold with excellent competition at prices fully as high as those obtained at the preceding auctions. The total weight of the parcel offered was 6,788 lbs. Before proceeding to sell the broker made it plain that he would accept no reduction in price; this, in fact, was not unexpected, for we hear that several attempts to buy privately below the recent quotation had been unsuccessful. It is said that further direct consignments have gone to Paris, and that they are selling there at prices in excess of the London parity. The lots sold to-day brought the following prices:—Sound root, wiry to good fair, at 7*s.* to 7*s.* 3*d.*; first-class damaged, at 6*s.* 11*d.* to 7*s.* 2*d.*; second ditto, at 6*s.* 10*d.* to 7*s.*; and third and fourth ditto, at 6*s.* 9*d.* per lb. One bale good Carthagena, valued at 4*s.* 6*d.*, fetched the rather high price of 5*s.* 3*d.*

JALAP.—We hear of large sales in New York at the parity of 10½*d.* per lb., c.i.f. terms. At to-day's auctions here 2 bags thin and somewhat wormy tubers sold at 9½*d.* per lb. The new Mexican crop will shortly be due.

LITHIA SALTS.—There is said to have been an unusually good demand of late, especially for contracts, and the price for carbonate is quoted rather higher.

MATICO.—58 bales were offered to-day. The leaves seem to be all genuine, but many were very rough and discoloured. The whole parcel was bought in at from 5*d.* to 6*d.* per lb.

MENTHOL.—The week under review has been rather a quiet one, and there is not much pressure to buy. Fair native crystals could be bought certainly at 3*d.* less than last week, say 9*s.* 9*d.* per lb., but we do not hear of any business at that price.

MERCURIALS.—Rather weak, though the English quotation still remains at nominally 3*s.* 7*d.* for calomel; German offering at 3*s.* 5*d.*

MORPHIA.—The makers are now inclined to ask 3*d.* more per oz., say 5*s.* 9*d.* for powder and 6*s.* for crystals. They base this on the advance in almost all classes of opium.

MUSK (NATURAL).—Very little was offered to-day, and there was practically no demand. It is said that the appearance of the artificial article in commercial quantities has had the effect of frightening off the buyers, who prefer to see the shape things will take with regard to the new competition. Four caddies *Tonquin* pods, first pile old-fashioned top and under skin, small to bold well trimmed, were bought in at 78*s.* per oz. For 1 caddy medium to bold, thin skin and blue skin, well trimmed but damp, an offer of 82*s.* was refused; and another lot of 3 caddies small to bold, old-fashioned, dry and well trimmed, was bought in at 75*s.* per oz. *Thibet* pods, a package of small round, very skinny, hairy pods, sold at 34*s.* per oz. *Cabardine*, good white hard *Russian* pods are said to be held at 23*s.*, and a tin of fair bold *China Cabardine* was bought in at 25*s.* per oz. *Grain musk*: A poor selection met with no demand.

MUSK SEED.—We hear that there has been a specially good demand recently, that Java seed is now worth 5*d.* per lb., while Martinique might fetch from 7*d.* to 8*d.* if offered.

MUSK (SYNTHETICAL).—This article is now freely offered in commercial quantities, both from France and Germany. It is reported to-day that the price of that offered from Paris has been advanced by 5*s.* per oz., but 65*s.* per oz. still remains the highest quotation. Most of that shown here is made by the Fabriques de Produits Chimiques de Thann et de Mulhouse, who put it up in 10-gramme vials, the article being very light. The Continental syndicate of perfumers, who are now the proprietors of the patent, are said to be manufacturing it in Germany and France simultaneously. The artificial musk is a coal-tar product—made from toluol—and the patent specification seems to give the faintest possible clue to the process of manufacturing it.

NUX VOMICA.—The 10 bags in this day's auctions fetched 9*s.* per cwt. for fair quality.

OIL (CASTOR).—In this day's auctions 9 cases *Italian* were bought in at 6*d.*, but 5¼*d.* would probably lead to business. Firsts Calcutta was taken out at 4¾*d.*, and seconds at 4¼*d.* The latter might, however, be bought now in London at 3¾*d.* per lb., as there is a heavy decline in the article, and in Liverpool the quotation has receded to 3$\frac{9}{16}$*d.* per lb.

OIL (COD-LIVER).—Reports from *Norway* say that so far there has been no attempt at fishing, although sometimes about this season the preliminary fishing is usually far enough advanced to show how it is likely to turn out. In the meantime there is no demand for the old oil. The best non-freezing may be quoted quite nominal up to 65*s.* per barrel. At the auction 6 barrels *Newfoundland* brown, rather strong odour, sold without reserve at 1*s.* 9*d.* per gallon.

OILS (ESSENTIAL).—Business has been very quiet this week. *Star-anise* was bought in at 6*s.* 3*d.* per lb. at auction, and the last sales we hear of on the spot were at 6*s.* 2½*d.* per lb. One case of fine pale *Cinnamon* oil sold at 2*s.* per oz. to-day. *Citronella* oil in bottles is scarce, and 1 parcel of 100 cases (at 36 bottles each), which sold to-day at ¾*d.* per oz., were generally thought a cheap lot. For *Lemon-grass*, 1¾*d.* per oz. is the nearest quotation. American oil of *Peppermint* H.G.H. nominal at 11*s.* per lb.; for Japanese, 4*s.* 9*d.* to 5*s.* per lb. *Pennyroyal* reported dearer from America. *Wintergreen* oil, after a sharp advance, is now reported lower again from the States, at 8*s.* 5*d.* to 8*s.* 6*d.* "c.i.f." for tins and about 3*d.* per lb. more for bottles.

OPIUM.—The news from Smyrna is very exciting, and reports come in almost daily of advances all round there. It is said that for even the commonest *Talcquale* opium 12*s.* is being freely paid. The London market is also decidedly firmer, but does not advance in the same proportion as that of Smyrna, though there has been a large business. Good *Druggists'* opium is difficult to get, and must be quoted at 13*s.* to 13*s.* 6*d.* per lb.; seconds are practically the same price; *Persian*, 13*s.* 9*d.* per lb. *Soft shipping* opium has not moved so much, the finest is quoted up to 14*s.* 6*d.* per lb.

PELLITORY.—For 8 bales from Algiers an offer of 30*s.* per cwt. is to be submitted.

PODOPHYLLIN.—The *Resin* is quoted at 8*s.* 6*d.* per lb. *Root* is said to be somewhat easier in America, and good dry root is offering at 28*s.* "c.i.f." terms.

POTASH SALTS.—*Bichromate* dull at 4*d.*; *Chlorate* firm, and nothing to be had under 4$\frac{5}{8}$*d.* on the spot; *Prussiate* nominal at 9½*d.* to 10*d.*, according to brand, for yellow.

POTASSIUM (BROMIDE).—The convention price of 1*s.* 5½*d.* per lb. is now only being undersold to the extent of ¼*d.* per lb. by second-hand holders.

QUICKSILVER.—The sales effected by the principal importer last week at 9*l.* 10*s.* amounted to 3,000 bottles, not 30,000 bottles as printed in our last report by an obvious error. The arrivals continue very heavy, and since our last report we note two parcels of 5,082 and 4,920 bottles respectively. The market has been dull this week, and while the importer still holds at 9*l.* 15*s.* nominally, second-hand holders have come down to 9*l.* 7*s.* 6*d.* to 9*l.* 8*s.* 6*d.* to-day.

QUINCE SEED.—One bag from the Cape sold to-day at 8½*d.* per lb. Good bright quality is privately quoted at 9*d.* per lb.

QUININE.—The market has been somewhat quieter this week, but to-day a lively demand has again set in and sales of between 50,000 and 60,000 oz. German bulk in second hands are reported at 1*s.* 3*d.* per oz. on the spot, 1*s.* 3⅛*d.* per oz. for March, and 1*s.* 3¼*d.* per oz. for May delivery. These prices are somewhat below the closing rates of last week, but show an improvement upon yesterday. At to-day's auctions a good deal of attention was aroused by the inclusion into the catalogues of 39,000 oz. quinine, viz., 27,000 oz. of *Whiffen's*, in 100 oz. tins, 10,000 oz. *Lombarda*, in 100 oz. tins, and 2,000 oz. *Aucrbach*, also in 100-oz. tins. When the first-named parcel was reached the room was full of outsiders, who had come in to see the fun. Several offers of 1*s.* 2*d.* per oz. were at once made, then some one offered 1*s.* 2½*d.*,

and finally 4,000 oz. sold to the brokers at 1*s.* 3*d.* per oz., the remainder being bought in. The Italian and the Auerbach quinine were also bought in.

RHUBARB.—This day's supply amounted to 127 cases, 60 of which were sold in sale, and about 25 more after its close. *Shensi*, medium to bold round, three-fourths pinky, at 1*s.* 7*d.* per lb.; bold round spongy, half-dark fracture, at 1*s.* 2*d.*; good small round, fair pinky fracture, at 1*s.* 5*d.* to 1*s.* 8*d.*; one heavy case medium round pale-coated three-fourths pinky, at 1*s.* 3*d.*; round pickings at 10*d.*; and very low dark small round at 4½*d.* Bold flat dull-coated half pinky at 1*s.* 7*d.*; medium and bold flat, three-fourths pinky, at 1*s.* 8*d.* to 1*s.* 11*d.*; small flat at 1*s.* 5*d.* to 1*s.* 6*d.*; flat pickings at 10*d.* to 1*s.*; bold flat rubbish at 2¼*d.* to 2½*d.* per lb.; *High-dried* flat, mixed in sizes, greyish pinky fracture, at 10*d.* to 10½*d.*; wormy at 6¼*d.* per lb.

SARSAPARILLA.—Of 71 bales offered 21 sold; fair *Honduras*, Crown mark, at 1*s.* 4*d.*, damaged at 1*s.* 3*d.* per lb. *Jamaica* gnawed by vermin at 1*s.* to 1*s.* 3½*d.*, otherwise damaged from 9*d.* to 1*s.* 2*d.* per lb., and the sound bought in at 1*s.* to 1*s.* 7*d.* per lb.

SENEGA.—Our nearest quotation is 1*s.* 11*d.* per lb. for good bright root. In America the demand has been better lately and several important orders have come over from Europe. A dealer in the Western States, whose operations have depressed the market lately, is now reported sold out and it is thought that an early improvement is not unlikely; stocks are said to be insufficient to supply buyers' wants until the next crop comes in.

SENNA.—The 395 bales catalogued to-day did not represent all the late arrivals, but they were nearly all sold, viz. 363 bales, at an average decline of ½*d.* per lb: very small, and narrow greenish leaf, 1½*d.* per lb.; fair green, slightly specky, at 2*d.* to 2½*d.*; good fair at 3½*d.* to 4*d.*; and rather bold slightly off colour at 4½*d.* to 5¼*d.*; damaged parcels lower in proportion.

SHELLAC.—Very little of note has occurred in this market since our last report, and the few spot parcels sold fetched a little more money than was paid in the first public sales this year, followed by a reaction of January 21, when 1,470 cases were catalogued, meeting with scant attention. The total sold amounts to 375 cases, at a decline compared with last sale prices of about 2*s.* on *Second orange*, and from 2*s.* to 3*s.* on *Button*. The prices realised for *Second orange*, worked, were, good pale, 86*s.*; good red, S D in circle, 78*s.*; ordinary livery, 73*s.*; ditto, unworked, fair, 73*s.* to 74*s.*; and ordinary livery, 72*s.* per cwt. AC *Garnet* was all bought in. *Button*, worked, fair firsts, sold at 93*s.*; ditto, unworked, fair firsts, 94*s.*; good seconds, 91*s.*; 2 in circle, 87*s.*; mixed third, 84*s.* per cwt. Bombay, 40 cases button bought in. For delivery the prices are ruling as follows:—

	Feb.	Mar.	Apr.	May	June
Orange TN, sellers	76/6	76/	76/	76,6	76/6
„ buyers	75/	75/	75/6	75/6	76/
Garnet AC, sellers	72/	72/	71/6	—	—
„ buyers	69/	70/	70/	—	—

These quotations show more firmness than yesterday, but business in the "ring" is very slack, although the quietness seems perhaps to be accentuated somewhat by artificial depression. We hear that privately holders are very firm, with business as follows:—Second orange, 300 cases, March, 76*s.*; May-June, 76*s.* 6*d.*; garnet AC., 200 cases, February, 71*s.* per cwt.

SODA SALTS.—*Ash*, Tyne 1⅛*d.*; London, 1⅜*d.*, and firm; *Bichromate*, very steady at 5*s.* 9*d.*; *Caustic*, firm at 7*s.* 9*d.* to 8*s.* for 60 per cent. white; *Cream*, 7*s.* 6*d.*; *Crystals*, strongly held and dearer, London 56*s.* to 58*s.*, Tyne 48*s.* to 50*s.*; *Nitrate*, neglected and dull, 8*l.* 5*s.* to 8*l.* 17*s.* 6*d.*, according to test.

SPICES.—This week's auctions were very much smaller than usual. *Arrowroot* (St. Vincent) selling without reserve at 1½*d.* to 1¾*d.* in barrels, and at 1¼*d.* to 1⅜*d.* per lb. for ordinary in tins; Natal at 2⅜*d.* per lb. *Cloves*: Zanzibar, no change since last sales; good fair at 5¼*d.* per lb. Amboyna, 49 bags, sold without reserve at 6⅜*d.* per lb. Zanzibar to arrive at 4 15/16*d.* to 5*d.* per lb., c.i.f. London, landed weights, according to shipment. *Chillies* are a little dearer, at 30*s.* per cwt. for fair Zanzibar, at 32*s.* for good, and at 34*s.* for fair bright. *Mace*, Bombay, good middling bright, at 2*s.* 8*d.* per lb.; West India at 2*s.* 3*d.* to 2*s.* 5*d.* per lb. *Nutmegs* very quiet; Penang 68's mostly sold at 2*s.* 10*d.*; Bombay 86's to 78's at 2*s.* 8*d.*, 99's at 2*s.* 7*d.*, 108's at 2*s.* 6*d.*, 132's to 137's at 2*s.* 4*d.*; West India at 2*s.* 6*d.* to 2*s.* 7*d.*, in shell at 1*s.* 4*d* to 1*s.* 6*d.* per lb. *Ginger*: Cochin remains very slow of sale, and prices have not altered since last week. *Pepper* (*black*): The market is flat, Singapore, inferior mixed, having been sold without reserve at 6*d.* to 6⅛*d.* per lb.; fine washed at 6¾*d.* per lb. Penang is worth from 5*d.* to 5⅞*d.* and Lampong 5⅜*d.* *Pepper* (*white*) slow of sale, Penang at 7¾*d.* to 7⅞*d.*, and Singapore at 10⅞*d.* *Pimento* rather steady at previous rates, viz., at 2⅞*d.* to 3*d.* per lb. for ordinary to good fair. *Tapioca*: Good fair Singapore at 1⅞*d.* per lb., and fine bright white Penang at 2½*d.* to 2⅝*d.* per lb.

TEA.—The *China* market is quiet but firmer than last week for lower grades, although the country demand is small and dealers are complaining loudly of the great difficulty of moving any quantity of Congou. Tuesday's sale, postponed till the afternoon on account of the funeral of Lord Napier of Magdala, passed off rather irregularly, but prices were very firm on Wednesday for Monings from 4½*d.* to 5¼*d.*, of which the sale chiefly consisted. There can be little doubt that many of these first crop Monings that are selling from 5*d.* to 5½*d.*, though they were valued from 8*d.* to 9*d.*, or even 10*d.*, on arrival, are worth buying to hold for a time. The probability is that we shall see a heavy falling off in the import of Congou next season, and many buyers are, it is understood, not going out to Hankow for next season, so that sooner or later these teas are bound to be wanted, though it may be a waiting game for the speculator. New makes are more plentiful and easier. Scented capers are in large supply and very cheap. Greens are very flat with heavy sales, and show a decline for the week. *Assams* remain firm for all teas under 8½*d.*, although the country demand is scarcely more lively than that for China tea, but better grades are not much wanted, and good medium Pekoes show capital value. Finest grades are scarce and in strong demand for really choice tea. *Ceylons* under 1*s.* sell at about last week's rates, very little going under 10*d.* except poor liquoring sorts of Souchong and Pekoe Sonchong. Broken Pekoes are easy, and really fine teas may be bought from 1*s.* 2*d.* to 1*s.* 3*d.* per lb.

TONQUIN BEANS.—Four cases catalogued for sale to-day were not landed in time to be sold. From America reports come very firm. It is said that the largest transaction ever known in *Angostura* beans took place there some short time ago, that the market is now almost cleared of that variety, and that 6*s.* 3*d.* to 6*s.* 6*d.*, c.i.f., is now the lowest quotation. *Parás* out of stock.

VANILLA.—The quantity offered to-day was of smaller extent than at the last sales. It consisted of 209 tins, of which 208 found buyers at fairly steady prices, 8 to 8½ inches at 19*s.* to 21*s.*; 7½ to 8, 15*s.* to 20*s.*; 7 to 7½, 17*s.* 6*d.* to 19*s.*; 6½ to 7, 7*s.* to 15*s.* 6*d.*; 6 to 6½, 9*s.* 6*d.* to 15*s.*; 5½ to 7½, 14*s.* 6*d.* to 15*s.*; 5½ to 6, 13*s.* to 14*s.* 6*d.*; 5 to 5½, 12*s.* to 14*s.* 6*d.*; 4 to 5½, 6*s.* 6*d.* to 13*s.* 6*d.*; 3½ to 5, 11*s.* to 12*s.* per lb.; and a large proportion more or less mouldy at low figures. *Vanillin* is quoted 20*s.* per oz.

WAX (BEES').—Of 38 packages of various descriptions 21 sold at good prices, *Jamaica* fetching from 5*l.* 7*s.* 6*d.* to 5*l.* 17*s.* 6*d.* for fair to good quality; *Australian* at 5*l.* 5*s.* per cwt.

A FEW grains of salt on the tongue before taking renders cod-liver oil palatable and suggests sardines. A bit of pickle before and after renders the dose acceptable.

THE editor of a new Chicago druggists' paper is said to wield the editorial pen with the same vigour that he wields the base-ball bat, the pestle, or the ten-pin ball. A lively individual indeed.

LE ROY proposes to make alkaline nitrites by heating the nitrates with barium sulphide, four molecules of the former and one of the latter changing to four molecules of alkaline nitrite and one of barium sulphate, under the influence of heat.

Correspondence

Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what ou wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulæ consult the last volume, if you have it.

Letters, queries, &c. will be attended to in the order received.

Testing for Arsenic.

Sir,—*Apropos* of your interesting article on the detection of arsenical compounds in wall-papers, may I send a few words concerning conditions which somewhat influence the action in Marsh's apparatus?

It is well known that the addition of "bichloride of platiuum," so called, increases the evolution of hydrogen, and is free from objection.

Sulphate of copper has been used for the same purpose, but reactions which complicate are simultaneous. In Gladstone and Tribe's method for the determination of nitrates zinc is warmed with solution of sulphate of copper, and becomes coated with copper (under some conditions the copper falls in powder). The presence of sulphate, and probably other compounds of copper, causes the same reaction in Marsh's generator, and the arsenic is partially deposited on the copper thus obtained, and partially evolved as arsine, which may be detected in the usual way. Those who have investigated the subject say two-thirds of the arsenic are retained if the copper be sufficient for the reaction.

Nitric acid or nitrates are occasionally present as impurities in sulphuric acid. Blondlot says the use of such acid in Marsh's apparatus causes in the presence of arsenic the formation of an arsenical compound which does not combine with the gas evolved. Under these circumstances the zinc or acid may contain arsenic and yet not give evidence of the fact till the addition of some compound (sugar and many organic bodies), which prevents the formation of the said compound, and an opinion might be formed that the added substance contained poisou, though it were quite innocent.

In quantitative work it is well to ensure the absence of the above to obtain accurate results with Marsh's test, which may, of course, be made so by passing the gas into nitrate of silver solution, precipitating excess of silver by hydrochloric acid, alkalising with bicarbonate of sodium, and estimating with iodine the arsenic in the usual way; the gas to be passed till it no longer gives a "mirror" when the delivery tube has been made red-hot for a quarter of an hour or more.

Bishop Stortford. Charles Turner.

The Half-prieed Closed Letter Company (Limited).

Sir,—You asked lately for information in regard to the above. In reply, the supply sent me sold rapidly, and I have had repeated applications for more; and as a medium for advertisements I should think it good, as I received answers daily, never less than two, and sometimes five, in reply to one I inserted during several months that the issue was before the public, and I still continue to get two or three a week.

I think the company's cauvassers, instead of looking up agents, might devote their euergies exclusively to get advertisements, so that more issues could be got out. There is no doubt the public will buy; all that is wanted is a sufficient supply of the article. Agents get 5 per cent. on their bond, and so far my coupons have been promptly paid, 4 per cent. upon the envelopes and ½*d.* each on those they use themselves. The envelopes put on one side for your own use, say one hundred out of each supply—a clear gain to the agent of 4*s.* 2*d.*; perhaps you put more, and if a regular customer brings custom, it is practically a monopoly, as the post-office authorities would not issue their licence to a near neighbour, and without it no one is permitted to sell.

The business may be a little slow now, but I believe it will be a good thing soon, and I strongly advise those who are hesitating to secure this monopoly. There is, in my opinion, less risk of losing the 10*l.* here than if invested in mag. cit. efferves. (so-called) with a summer like ours.

Yours truly,
F. R. P. (29/48.)

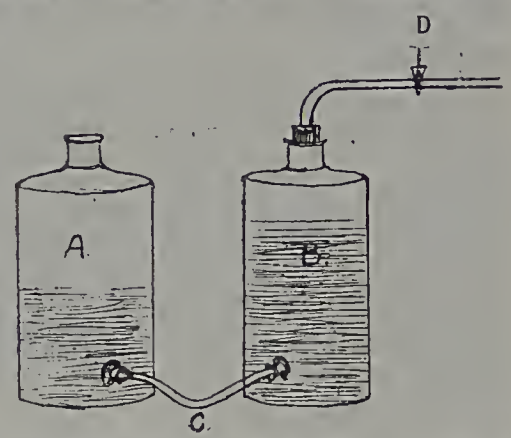
Associates and Associates in Business.

Sir,—A recently submitted case to the secretary of the Pharmaceutical Council has disclosed the fact that associates at the stores and companies pay only 10*s.* 6*d.* per annum subscription, with the full usage of labels and wrappers—beyond a doubt an infringement on retail trade. The Council in its wisdom have decided to take no action whatever in the matter. I presume the retail chemist for the future must bear the additional disadvantage from that source.

Yours faithfully,
South Kensington, Jan. 15. Geo. W. Sargent.

Substitute for Kipp's Apparatus.

Referring to the note published in our issue of December 28 regarding a suggestion made by Mr. Eustace Thompson, of Bradford, for a cheap apparatus for the generation of gases, Dr. S. Mierzinski, of Brünn, writes to say that the idea is by no means new, and he has seen it in use for a very long time in the form shown in the figure. It consists, as will



be seen, of two tabulated bottles, A and B, connected by means of the iudiarubber tube C, the bottle B being also fitted with a tapped tube, D. Into the bottle B is placed the ziuc, sulphide of iron, or whatever solid material is used iu generatiug the gas required; but first there is placed in the bottle a layer of well-washed coke, with another layer of quartz sand over, the whole going a little above the tube C. The bottle A is three-fourths filled with the acid required. As long as the tap D is closed this acid remains in A, but when it is open the acid proceeds to find its level, and at once begins to act upon the zinc or other material in B. When the tap is again closed, the force of the evolving gas drives the acid back into A, exactly as happeus in Kipp's apparatus. In practice it works admirably, and Dr. Mierzinski thinks it is as simple, useful, and as cheap as that proposed by Mr. Thompsou.

An Antiseptic Atmosphere.

Sir,—It may not be too late in the day to call attention to a plan which has proved very efficacious in our hands for the prevention of influenza, the more so as the plan is one which lends itself to the preservatiou of health and the preveution of disease generally. Less adapted to domestic use, it is admirably suited for offices, factories, aud the like. Briefly described, it cousists in the use of some system of forced ventilatiou, the incoming air being filtered and

warmed by the waste steam from the hoiler. It may advantageously be impregnated with some volatile, and possibly fragrant, antiseptic, such, for instance, as eucalyptia, pinol, &c. In our own offices the system is that known as the Stnrtevant apparatus, and the results, apart from securing efficient ventilation and a proper provision of pure warm air at all times, have been singularly satisfactory in protecting our employés against attacks of the prevailing influenza, while in neighbouring nnprotected offices and factories the employés have been down hy the dozen. We are, therefore, glad to have an opportunity of bearing testimony to the simplicity and efficiency of the method.

A comparative immunity from influenza has also heen experienced where the antiseptics have heen sprayed through the rooms or evaporated from hlotting-paper.

We are, sir, yours faithfully,

January 16. BURROUGHS, WELLCOME & Co.

Santha Replies.

SIR,—In your issue of to-day's date we ohserve a reprint of a paper on "A Digestive Extract of Tea." The author manifestly refers to Santha, and we are gratified to find that hy following our directions he ohtained a clear heverage, which was pleasant to the palate and with good aroma. We have also to acknowledge the skill and judgment which he showed in his analysis of the article, and have only to say that his results are correct. He, however, seems to imply that the gelatine present cannot exercise any heneficial action, since in the dry Santha it is in the free state. But we really have only to consider the snhstance after it has passed into the state of solution. In this condition the gelatine is in combination with the tannin in the form of a soluble sub-tannate of gelatine, a substance not named in text-books of chemistry, bnt of which we have demonstrated the existence. This sub-tannate, unlike the ordinary insolnhle tannate, is incapable of further acting upon suhstances more or less analogous to gelatine, and hence has no action upon the fluids or memhranes of the stomach. But, like the soluhle componnds of tannin in general, it strikes, hy donhle decomposition, a deep hlack colour with per-salts of iron, a reaction which the author of the paper in qnestion has evidently supposed to he characteristic of free tannin. We should much like him to compare a solntion of Santha with an ordinary infusion of tea in respect of its power of converting raw hide into leather. He will find, according to onr nniform results, that with Santha there is no action, whereas with tea-infnsion leather is readily formed. If he will try this experiment and puhlish his results, we shall consider it a substantial addition to the valuable testimony which he has already really given as to the excellence of our article. The only further request that we would make of him is that he shonld experiment upon the non-injnrious action of Santha in cases in which ordinary tea is prejudicial to the digestion.

We are, sir, your obedient servants,

THE SANTHA TEA COMPANY (LIMITED).

Darjeeling Works, Penarth Street, Hatcham,
London, S.E., January 18.

The Chemistry of Soap.

SIR,—As there seems to be some misunderstanding regarding the matter of a bi-fatty (or di-acid) soap molecnle, will yon kindly allow space for a few lines on this suhject?

Acids of the fatty series are well known to be capable of forming "di-acid salts," or salts where only one-half of the hydrogen replaced in neutral salts is actually replaced hy a metal. Acetic acid, for example, forms "a diacetate of potassinm," $KHC_4H_6O_4$, and its higher homologues, such as stearic and palmitic acids, present in most kinds of soap, form similar compounds, which are described in the standard works on chemistry, such as "Watt's Dictionary."* It has recently heen shown by Alder Wright and Thompson (Cantor Lectures, Society of Arts, 1884; also Jonrnal Society Chemical Industry, 1885, vol. iv., p. 625) that neutral soaps partially hreak up in contact with water into free alkali, and "acid soaps" to an extent variahle with the nature of the fatty acid present, and the proportion of water employed, the acidity of the resulting acid soap heing capahle of determination hy the usual titration processes. So far, therefore, it is a fact well known to all acquainted with the chemistry of soaps that soap may he of the nature of an acid salt. It is helieved that soaps partaking of this nature are better suited for use by tender-skinned persons than ordinary soaps, as being less liable to irritate the skin through this formation of free alkali in contact with water.

Of course the foregoing has no applicahility to soaps in the ordinary acceptation of the term.

We are, &c.,

BLONDEAU ET CIE.

* *Vide* Articles, Acetic Acid, Palmetic Acid, &c.

Beware Aërated-water Bottles.

SIR,—Just one more to the numerous list of annoyances chemists are suhject to.

A chemist in this town has received a solicitor's letter, calling his attention to the fact that he had put "turpentine" in a soda-water hottle, and that he (the solicitor) had been instructed hy a local association of mineral water manufacturers to demand a puhlic apology to be printed at his cost in the Wigan papers, or else he (the solicitor) would at once take action against him.

Your publication of this, so as to put chemists on their guard, and also your opinion and suggestions, will ohlige.

Yours obediently,

Wigan, January 21. J. PHILLIPS.

Pure Blood Manure.

Mr. E. Andrews (Manchester) kindly sends the subjoined:—

Muriatic acid	4 oz.
Protosulphate of iron	4 „
Blood	16 lbs.

As soon as the hlood hegins to smell, pour npon it the other ingredients, previously mixed, and it will be reduced to an inodorous powder, which will keep any time, and is of a fertilising strength equal to guano. The action of this manure is to produce flowers and frnit instead of leaf and stem.—*Gardener's Year-book*, 1881.

LEGAL QUERIES.

226/32. *Ivanhoe.*—It is, of course, illegal for any unlicensed person, be he grocer, ironmonger, or chemist, to sell methylated spirit; but we do not see how a licensed retailer who should supply the spirit to the unlicensed vendor could he fined. He would be wise, however, in refusing to be mixed up in any such transaction if he nnderstands what is going to he done.

Cum Grano Salis (224/64) supplements onr reply of last week to "Nemesis" (216/57) as follows:—If your [usual] fee for analysis is the sum you name you have a perfect right to get it, whether you do the work for the police or anyone else. As the editor remarks, the magistrates can allow a witness any sum they think fit for giving evidence, and you must take the amount offered to you on that score; hut with regard to the analysis of the meat given to you, that is a private transaction, and has nothing whatever to do with the magistrates at all. The person to pay you your fee is the man who gave you the work—the superintendent of police; and if he refuses to pay what you ask you must seek to recover the amount in the County Court. [The suggestion is plausible, but we do not accept responsibility for it. Onr legal adviser says he would be glad to see such a case tried, hut he would much rather act for the superintendent than for the witness.—ED. *C. & D.*]

221/46. *H.*—By the Jury's Act, 1870, all registered pharmaceutical chemists, *if actually practising as such*, are exempt from service on all juries, including coroners' juries. By Section 9 of that Act it is provided as follows:—The persons described in the Schedule hereto (which includes registered pharmaceutical chemists) shall be severally

exempt as therein specified from being returned to serve, and from serving upon any juries *or inquests* whatsoever, and their names shall not be inserted in the lists of the persons qualified and liable to serve on the same. By the Coroners' Act, 1887, the coroner is obliged to issue a warrant to summon a jury, and there is no doubt that the summoning officer ought to produce the warrant when he summons a juror. The coroner has by the same Act power to impose a fine of 5*l.* for non-attendance of a juror, in addition to the power to commit for contempt of court. This fine is levied by the Sheriff through the medium of the Quarter Sessions. The proper course on being wrongfully summoned is to attend and claim exemption.

A. Hagon.—You will find instructions in reference to patents in the DIARY, 1890, page 270.

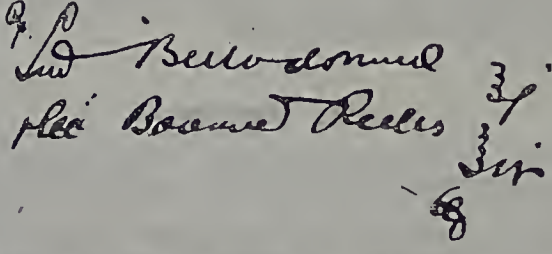
227/63. *W. W.*—The Pharmaceutical Council at one time claimed the right to restrict the exhibition of the term "Pharmacy" (as, for example, "The City Pharmacy," &c.) to pharmaceutical chemists: but they never enforced their claim, although they were defied on the point. We do not think they could establish such a right.

DISPENSING NOTES.

The opinions of practical readers are invited on subjects discussed under this heading.

Illegible Prescriptions.

The subjoined is one of two prescriptions which a Border correspondent sends us. The peculiar feature about the one which we do not print is that it is written upon a piece of newspaper. The second ingredient in the following one is couched in somewhat obscure diction:—



We shall be glad to receive and acknowledge post-card translations of the prescription.

Bismuth and Inf. Rosæ.

SIR,—In answer to the question "Was this right?" in Dispensing Notes of January 18, I think "Theseus" would have done better to have made simple infusion of roses without ac. sulph. dil., and used that instead of aqua rosæ and liq. cocci. It would have been nearer like the prescription.

I have made it up so, and it makes a presentable mixture.

Yours truly,
F. J. C. (266/22.)

SIR,—I should have omitted the acid from the infusion. I do not think the plan adopted by "Theseus" has anything to commend itself, except a saving of time. And it may be that the prescriber purposely wrote inf. rosæ instead of inf. rosæ acid.

Yours truly,
HEDER.

SIR,—"Theseus" was very much to blame in substituting "aq. rosæ c. liq. cocc. cact." for inf. rosæ acid. He should have used "bism. subnit." in place of "bism. carb."

Yours truly,
55 Myrtle Street, Liverpool. JOHN SMITH.

Tr. Quin. Ammon. Mixtures.

SIR,—I can't for the life of me see why the tr. quin. amm. should prove so troublesome as "Heder" seems to imply, and as some I know of have found it. I have failed to find the "ball of quinine" in whatever proportions mixed, whether with distilled or common water. I make the tincture according to the formula of the Extra Pharmacopœia, employing no heat, and should recommend it to others, as being more economical, more satisfactory, and more expeditiously prepared than that of the B.P.

Yours truly,
411 Marc Street. G. J. THOMAS.

[It is worth pointing out that Mr. Martindale says, "The quinine precipitates on the addition of water." This also is our experience.—ED. *C. & D.*]

SIR,—If your correspondent "Heder" would put ½ oz. of mucil. acaciæ into a portion of the water before adding the tinct. quin. ammon. he would find no difficulty with the mixture, and, as the letter referred to did not emanate from a pharmacien, this oversight is quite excusable.

The real utility of this mixture in curing influenza I am prepared to vouch for, having seen it used in several cases without a failure, and it is much to be preferred to the various mysterious compounds with curious names, which more or less interested parties are persistently writing up in the medical journals, but of which little is known by anyone but the makers.

Whilst some are experimenting with these new-fangled chemicals, and getting a modicum of success, others who are using the tr. quin. ammon. remedy are scoring a uniform success.

Yours, &c.,
January 20. PHARMACY. (227/13.)

Iron and Orange Mixture.

SIR,—This afternoon I had the following prescription to dispense:—

Ferri sulph.	gr. xxiv.
Mag. sulph.	℥iss.
Tinct. aurant. cort.	℥j.
Aq. ad	℥vj.

I dissolved the ferri sulph. in almost all of the water available, then added the mag. sulph. (which was in solution 1 in 2), finally adding the tinct. aurant. The colour of the mixture was about the same as tinct. aurant., only a little turbid. When my customer saw it he said he had had it made up in three or four places (including London) but it had always been about the colour of this (showing me a purple-shouldered box). When he was gone I made it up again, and added the tinct. aurant. to the ferri sulph. dissolved in just a little water, then the remainder of the things, which gave a *very much* darker mixture.

Will you kindly tell me whether the way in which I dispensed the prescription was correct, and also whether the colour of the mixture I obtained was right?

Yours truly,
January 13. A COUNTRY MAN. (220/61.)

[It matters little which way the prescription is dispensed. The first method gives a much paler mixture than the second, but within an hour both are equally dark, the colour being due to the action of the iron salt on the aromatic constituents of the orange peel.]

A Cocaine Lotion.

SIR,—I should like to have the opinion of some correspondents in respect to the application of heat in making this lotion:—

Cocain...	gr. vj.
Acidi borici	gr. xij.
Aquæ	℥vj.

M. ft. collyrium.

Yours truly,
HEDER.

A Quinine Mixture.

SIR,—Would you kindly inform me what causes a precipitate to form in the following mixture, after it has stood some time? It was perfectly clear when made:—

Quininæ sulph.	9j.
Acid. hydrobrom. dil.	3j.
Glycerini	3j.
Potass. bromidi	3j.
Æther. chlor.	3ij.
Aquæ ad	3viij.

Yours truly,

January 14. APPRENTICE. (221/60.)

[The quinine dissolves in the hydrohromic acid, and a clear mixture results, hut it does not remain so very long. In a few minutes, we find, the sulphate of quinine is thrown out in fine crystals. There is far from heing sufficient acid to form a perfectly soluhle quinine salt, and that alone accounts for the precipitate, which forms quite as readily in the ahsence of the other ingredients of the prescription.]

225/29. *B. H. A.*—When liquor pepsinæ is ordered in a prescription you should ask the prescriher what he means. We gave a formula in our issue of December 7, page 813. It is advisahle when eserine is ordered in prescription to dissolve it by the aid of its own weight of salicylic acid.

225/1. *H. Y.*—We have failed to get your result.

MISCELLANEOUS INQUIRIES.

A large number of correspondents ask us for formulæ and other information already published in this journal. It is not fair to more careful readers that we should frequently repeat such information, and so long as the back numbers containing the formulæ or replies required are in print we must decline to do so. Back numbers of our weekly issue can be obtained from the publisher at 4d. each.

214/38.—*Plaster.*—(1) **Chemical Apparatus for Beginners.**—The apparatus generally required is for the generation of gases, and your stock will depend upon the demand. You can fit up several hottles for hydrogen hy adapting hent glass tuhes to 1-oz. quinine hottles. You can huy tubing ($\frac{1}{6}$ inch diameter) by the pound. The same kind of hottles do well for gas jars; 6 or 8 oz. flasks will he required for oxygen and chlorine. These should be of the best-quality hard glass. You will also require test-tubes, some porcelain dishes, small glass funnels, a few heakers, retort-stands (to retail at 1*s.*), spirit lamps, and glass rod. (2) The salicylic acid is to he dissolved in liq. ammon. acet. fort., q.s. (3) **Starch Glycerine of Borax.**—Make this of the same horax strength as the B.P. article, with half the amount of starch.

217/55. *Frost.*—**Frosting Glass.**—Dissolve $\frac{1}{2}$ lh. of Epsom salts in 1 pint of hoiling water, and apply the solution while warm. An ounce or two of alum is sometimes added.

20/90. *Eezebr.*—**Leuoorrhœa**—Consult the DIARY, page 168, and give a quinine and iron tonic.

Heder.—**Lassar's Hair Cure.**—The quantity of corrosive snhlimate required for the 8 oz. is 8 grains.

217/13. *T. T.*—**Luminous Bottle.**—Put a bit of phosphorus the size of a pea into a long 2-oz. phial; then pour in ahout 6 drachms of hoiling olive oil. When cold, cork carefully. It is the unfilled portion of the phial which gives the light, and it does so when the stopper or cork is removed In cold weather the bottle must he held in the hands to warm the contents before the stopper is removed.

219,28. *Kosmok.*—You may glaze pearl-coated pills hy warming a clean coater, and ruhhing the inside of it with hard paraffin or white wax. Then use it for polishing.

219/41. *G. F.*—The British Minor certificate is sufficient to qualify you as a chemist and druggist in any of the Australasian colonies. The most promising openings at present seem to be in the colonies of Victoria and New South Wales.

218/22. *York*, who writes from one of the Western United States, first wishes our journal many happy returns, and then asks why he, as still a subscribing member of the Pharmaceutical Society, is not allowed to vote (for the Council, we presume). We are informed that voting-papers for the Council election are not sent to members of the Pharmaceutical Society who reside in countries outside of Europe, for the reason that they could not be returned in time for the election. As the list of candidates is ready after the April meeting of the Council, and as the by-laws only provide that the voting-papers shall he sent out *not less* than ten days before the election, there is no insuperable reason why members residing in America should he deprived of the enjoyment of voting, except the overwhelming one that it has not been done before.

221/53. *H. U.*—You give us neither name nor address.

221/47. *H. A. W.*—See the article on "Cremor Morrhuæ" in our issue of November 2, page 625.

220/10. *T. F. W.*—**Cotton-seed Oil** is classed amongst the drying oils, hut may he said to he midway hetween those and such oils as olive oil. It is not very suitahle for luhrication, hut is much used in the United States for medicinal purposes, and with the addition of ahout 5 per cent. of olive oil makes good emulsions, such as liniment of ammonia and lime-juice and glycerine. It makes also very good cold cream. See a paper on the subject hy Mr. William Gilmour in THE CHEMIST AND DRUGGIST for April, 1885.

220/32. *S. C. McKee.*—**Minor Accidents.**—See Pye's "Elementary Bandaging and Surgical Dressing" (Trühner & Co., 1*s.* 6*d.*). This is a very serviceahle little book, which will, we think, give you the information wanted.

218/16. *W. C. D.*—**Relative Digestibility of Food.**—Precise and reliahle information on this subject is not easily ohtainahle. We have met with tahles showing how long various kinds of foods take to digest in the human stomach, but authorities are douhtful of their value. The following are a few examples taken from ohservations on one individual, a Canadian who was unfortunate enough to get a hole in his stomach which did not fill up; he was able to earn his living nevertheless. Fried tripe, one hour; codfish and bread and milk, 2 hours; roast heef and soft-hoiled eggs, 3 hours; salt pork, $4\frac{1}{2}$ hours; hard-hoiled eggs, $5\frac{1}{2}$ hours. It took $5\frac{1}{2}$ hours to completely digest a good hreakfast of fried sausages, coffee, and hread. Starchy foods are digested quickest, alhuminous and nitrogenous food take about twice as long, and fatty matter longest. But the very reason that digestion hegins when the food enters the mouth, and is not completed until it reaches the lower howel, renders it difficult to accept any specific statement. For instance, fatty matters are not much acted upon until they leave the stomach, and are principally assimilated in the intestines, so that it is quite possible that six hours after it has been eaten the digestive process may only have got a good start.

223/43. *Rex.*—We do not know how to answer your inquiry for an evil mixture for sheep. Sheep are not the subjects of "evil" as known to veterinary surgeons. There is joint evill in pigs and poll evill in horses, and foul, or evill, in the feet of beasts. The term must have a local application. Ahout lamhing mixtures, please refer to a reply given to a correspondent in this journal of March 17, 1888.

220/33. *Recognaissant.*—The titles are of no legal value. The first refers to membership of one of the botanic societies. We do not know what the second refers to. A judge once said that a person who called himself M.P. (maker of pop) could not be prevented from so doing. Perhaps the same argument might be applied to you if you were to add a string of letters to your name. It is entirely a question of honourable use, and a man himself is the best judge of whether his position can afford his sporting a title which does not properly belong to him.

220/89. *Student.*—**Hints to Minor Students**, an article in which the subjects were arranged as to time, &c., was printed in our issue for April 3, 1886.

223/66. *W. S. S.*—The Bill has not yet been published, but probably, as before, a certain date, perhaps three years distant, will be named, after which a certificate of having attended a certain course of lectures will be required of candidates for the Minor.

218/5. *Guython.*—The leaves and fruit which you send are those of the **Strawberry Tree**, *Arbutus unedo*, belonging to the heath order. The Corsicans make an agreeable wine from the flowers. The fruit, when fully ripe, is edible, but in large quantities narcotic.

172/39. *Aigoc.*—**Hat-reviving Powder.**—This powder which you send is really a dye, and a somewhat ingenious one too. It is composed mainly of borax, which will remove grease, and a little aniline black, which will freshen the colour.

210/12. *J. H. G.*—**Rose Ointment.**—The specimen which you send as a preparation used for polishing and staining the finger-nails, also as a lip-salve and a face cosmetique, has not, as you suppose, a paraffin basis, but one made up of saponifiable fats, evidently almond oil and white wax, say, 2 parts of the former and one of the latter. The melting-point should be 120° F., or thereabouts. The colouring, as near as we can judge, is magenta, a crystal of which, dissolved in a little water, should suffice for a few ounces of the salve. Perfume with otto of roses.

215/41. *E. L. C.*—We cannot trace your previous letter, as you do not give your full name.

221/56. *S. V. Meth.*—(1) **Phenacetin** has been the subject of very many paragraphs in back numbers, which we cannot epitomise on your behalf. Please consult the index of last volume and the agents' advertisements. The dose is 8 to 25 grains. See also the DIARY under "Season Specialities." (2) "The Students' Handbook to the Microscope," by A Quekett Club Man, would suit you. It is the cheapest we know of. (3) Your Mindererus spirit evidently contained carbonate of ammonia, with which the salicylic acid reacted.

210/73. *S. K.*—We do not know of any agent which will make the Christia adhere, and the patentee tells us he would give a good fee to anyone who would solve that difficulty for him.

221/22. *Vernet.*—**Tinctura Aconiti** (Fleming).—Aconite root, 10 oz; rectified spirit, 15 fl. oz. Reduce the aconite to powder, and make 15 oz. of tincture by maceration and percolation.

222/41. *Qui Hayc.*—(1) The soldering fluid used for the tins is accountable for the pink colour of the glycerine. Try the effect of a little peroxide of hydrogen solution upon a small quantity. (2) **Permanganate Disinfecting Fluid** is made double B.P. strength.

222/7. *Enquirer.*—**Essence of Raspberry.**—The sample sent appears to be the natural essence. Artificial essence never has the delicate flavour peculiar to the natural. The latter is generally made by steeping the fresh fruit in rectified spirit, which takes up little but the flavour and a trace of the colouring. After the spirit and fruit stand together for about a month the liquid is filtered, 5 to 10 per cent. of artificial essence added, and the whole set aside to mature, which happens in about a year.

222/4. *Benoni.*—(1) **Brown Hair-dye.**—A weak solution of silver nitrate gives the best results. Dissolve 8 grains of the salt and 2 grains of sulphate of copper in 1½ oz. of distilled water, add solution of ammonia until a clear solution is formed, then make up to 2 oz. with water. (2) We do not have a formula for a black graph ink, and have never seen a satisfactory one.

A Constant Reader (E.J.B. 218/4) has busied himself designing a new coat-of-arms for the Pharmaceutical Society of Great Britain, and he asks us to undertake the honour of presenting it. The following is his own description of the design:—"You see the Society on the left, piling Act after Act on the



poor chemist, whose purse is being constantly emptied into the dragon of fees, on the right, while the storekeeper, below, is raking in the cash. The only thing that keeps the poor chemist from a downfall is the arch of THE CHEMIST AND DRUGGIST. The Society rests on some musty volumes. The design is so drawn that the bottom can be let out for advertisements, as shown."

Information Wanted.

[*Replies to the following requests are solicited by correspondents of* THE CHEMIST AND DRUGGIST.]

218/31. Address of manufacturer of wafer-paper.

222/27. What is leather button (supposed to be a poison for dogs); also, what is Irish slate?

Information Supplied.

Mist. Pertussis, Victoria Hospital:—

Ammon. bromidi	gr. ij.
Tinct. lobeliæ	♏ ij.
Tinct. belladonnæ	♏ ij.
Syrup. tolu	♏ xv.
Aq. chloroformi	3ss.
Aquæ ad	3j.

M.

The above dose is calculated for one year old.

J. BURT (Worthing).

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[*See Inserts between pages 32 and 33 of this issue.*]

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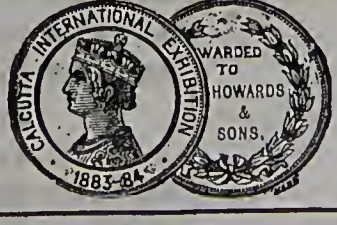
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SAVARS Combination Medicine Spoon (China)
Corn Plasters, Savars
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SAVARS Cream of Lilies
SAVARS Cubeb Cigarettes
SAVARS Ear Syringes
SAVARS ,, Sponges
SAVARS Eau de Cologne
SAVARS Electro Magnetic Machines
SAVARS Emollient Camphor Roll
SAVARS Extract of Limes and Glycerine
SAVARS Family Enema, and other Enemas
Family Adhesive Plaster, Savars
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SAVARS ,, Plaster, Adhesive, Savars. Adheres without warming, and may be easily removed for the inspection of wounds, &c.
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SAVARS Perfumery
SAVARS Poison Stoppers
SAVARS Pomades—Cantharadine, Castor Oil, Crystallized, Floral, Fossiline, Marrow, May Blossom
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Poor Man's Plasters, ordinary, **Savars**
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Sulphate of Soda	trace
Chloride of Sodium	·035
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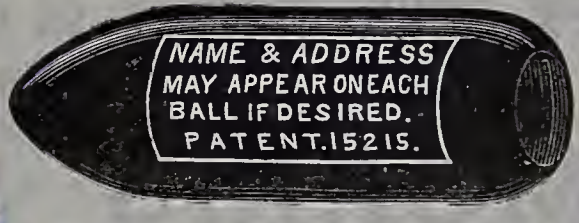
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Sold by all respectable Chemists, in Large sized Bottles (the 1s. size containing nearly Double the Quantity usually sold at that price), at 1s., 2s. 6d., and 3s. 6d. each. Also in Winchester Quarts for Dispensary and Hospital use.

☞ CAUTION.—Observe the SIGNATURE of the Inventor on EVERY LABEL.

SIR JAMES MURRAY & SON, CHEMICAL WORKS, **TEMPLE ST., DUBLIN.**

Wholesale Agents—BARCLAY & SONS, 95 Farringdon Street, London.

Trade Notice.] [Trade Notice.

ATKINSON & BARKER'S
ROYAL INFANTS' PRESERVATIVE.

Established by 90 years' experience as a safe and effective Medicine.

Sold universally by Chemists and Patent Medicine Dealers.

WHOLESALE AND EXPORT ORDERS SUPPLIED FROM THE MANUFACTORY—

11 RUSSELL STREET, DOWNING STREET, MANCHESTER.

SHOW CARDS AND BILLS ON APPLICATION.

NOTICE.
TOWLE'S PENNYROYAL & STEEL PILLS

Mr. E. T. TOWLE, of Dryden Street, Nottingham, Chemist and Druggist, begs to inform the Trade and the Public that he is possessed of the sole right to manufacture and sell TOWLE'S PENNYROYAL AND STEEL PILLS, and no other person or firm is intrusted in such business.

All orders to be addressed to Mr. E. T. TOWLE, or to his recognised Agents.

(Signed) **EDWD. T. TOWLE, Nottingham.**



CAUTION. Immediate proceedings will be taken against all persons pirating the Title, Name, or Trade Mark.

OPPENHEIMER'S

CREAM OF MALT

(REGISTERED),

WITH COD-LIVER OIL,

AND THE

HYPOPHOSPHITES OF LIME, POTASH, AND SODA.

Can be obtained from all Wholesale Houses, or direct from the Sole Manufacturers,

OPPENHEIMER BROS. & CO., Manufacturing Chemists,

1 & 3 SUN STREET, FINSBURY SQUARE, LONDON, E.C.

CHEMISTS WHO HAVE FAILED

To find a suitable Malt Extract should give Loeflund's a trial. It neither ferments nor crystallises, and is absolutely pure. In 2 cwt. casks, 28 lb. tins, 7 lb. tins. Also Malt Extract and Cod Liver Oil in Bulk.

LOEFLUND'S

KINDERMILCH & ALPINE MILK BISCUITS (POWDERED) (INFANT'S FOODS)

Are prescribed by the leading specialists in diseases of children.

LOEFLUND'S CREAM EMULSION (Cremor Hordeatus)

Is invaluable to those who cannot assimilate Cod Liver Oil.

Sole Agents—ROBERT BAELZ & CO., 14–20 ST. MARY AXE, E.C.

WILLIAM FOX & SONS,

WHOLESALE DRUGGISTS, &c.,

109 & 111 Bethnal Green Road, LONDON, E.

Cabinet Varnishes, Polishes, Glaze, Finishing Spirit, Glues, Wood Stains, Gums, Resins, Shellacs.

PRICES FORWARDED ON APPLICATION. TELEPHONE NO. 1499.

LOFTHOUSE & SALTMER,

MANUFACTURING CHEMISTS, WHOLESALE & EXPORT DRUG MERCHANTS,

HULL,

Manufacturers of all Pharmaceutical Preparations on the best and most improved principles.

QUOTATIONS ON APPLICATION.

SOLUT. ÆTHERIS NITROSI (Æther. Hyponit.)

1 part to 5 Sp. Vini Rect. 56 o.p. makes Sp. Æth. Nit. 850.

This concentrated preparation, carefully drawn in our own laboratory, is highly recommended, and daily finding increased favour with the trade for making Sp. Nitre, as required for use, thus avoiding the risk of loss of Nitrous Æther, and the development of free acid, both of which are almost certain to occur in Spts. Nitre which has been some time drawn.

Price in 1-lb. Bottles, 3s. per lb.; in Winchester Quarts, 2s. 10d. per lb., net.

Importers of Cod Liver, Castor, and Olive Oils; Extra Super Essence of Lemon and Bergamot; Otto de Rose, and all Essential Oils; Valentia Saffron; Vanillas; Fruit Essences; Carmine Aniline Dyes; Bees Wax, &c., &c. Applications for Special Quotations invited.

BUNTER'S

PREPARATIONS FOR THE TEETH

Are the PUREST, SAFEST, and BEST that can be used, containing nothing of a deleterious nature. They are strongly recommended by Drs. E. Smith, M.R.C.S., Prof. W. Wilson, M.D., Gordon Stables, M.D., R.N., Geo. H. Jones, D.D.S., F.R.S.L., F.R.M.S., &c., Andrew Wilson, M.D., F.R.S.E., &c., &c., J. Hounsell, F.R.C.S., and many others.

BUNTER'S NERVINE FOR TOOTHACHE, gives permanent relief by Painless constriction of the Nerve in Decayed Teeth, forms a Stopping, arrests Decay, saves Extraction, Sleepless Nights prevented, Neuralgic Headaches and all Nerve Pains relieved. As a NERVE TONIC it gives strength to the nervous system, invigorates the entire frame, affording relief and effecting a cure in many complaints over which the nerves exert control. Invented by G. B. BUNTER, Surgeon Dentist, Maidstone. Price 1*s.* 1½*d.* and 2*s.* 9*d.*

PURILINE TOOTH WASH for the TEETH, GUMS, and BREATH. A pure, perfect, and refreshing Fluid Dentifrice. A few drops in water used daily will thoroughly Cleanse, Beautify, and Preserve the Teeth, polish the Enamel, prevent Tartar, destroy all living "Animalculæ." It is Absolutely Pure and Harmless to the youngest child or most delicate constitution. Used as a Tooth Wash after each meal will keep the mouth in a delicious condition of comfort, health, purity, and sweetness, for ever. 1*s.* and 2*s.* 6*d.*

BUNTER'S DENTINE, a Permanent Stopping for Decayed Teeth. One can easily prepare and place it in the cavity of the Tooth in a soft state, and in a short time it becomes a perfectly hard and white Enamel, forming, as it were, a part of the original substance of the Tooth. Price 1*s.* 6*d.*

PURILINE TOOTH POLISH, a pure and perfect article for Cleansing the Teeth Hardening the Gums, and Perfuming the Breath Will Purify and Beautify the Teeth with a Pearly Whiteness, polish the Enamel, prevent Tartar, and destroy all living Germs (Animal or Vegetable), which are the most powerful source of decay to all Teeth. It is not a Powder or Soft Paste that will scatter over clothing and soil the toilet: it is a Dental Paste of stiff consistency, non-gritty, and Absolutely Pure and Harmless to use. It is neatly put up, forming a sightly Toilet Article, or may be carried in the pocket in any climate of the world, without injury or losing its virtues. Price 1*s.*

Proprietor—A. WILSON, 422 CLAPHAM ROAD, LONDON, S.W.



SEQUAH'S OIL.





SEQUAH'S PRAIRIE FLOWER,

AND

Sequah's Oil.

Prepared solely by

SEQUAH, LIMITED

KEEP YOUR EYE ON KOPTICA.

KOPTICA Is the Best, Cheapest, and Safest Remedy for Rheumatism, Neuralgia, Lumbago, Gout, Sciatica, and all kindred Diseases.

FREELY ADVERTISED AND WELL RECOMMENDED.

NO "CUTTING" POSSIBLE WITH "KOPTICA."

Books of testimonials, show cards, and every assistance to make a trade from

"KOPTICA CURE," 392 STRAND, LONDON. W.C.

DUNCAN, FLOCKHART & CO.

Wholesale and Export Druggists,

EDINBURGH.

CHLOROFORM

(DUNCAN'S).

PREPARED FROM PURE AND METHYLATED SPIRIT.

Put up in all sizes of bottles. A strap with Name and Trade Mark of the Firm is placed over the stopper of each bottle. For Export, in stoppered bottles, securely luted, and in hermetically sealed flasks when required.

N.B.—We guarantee our Chloroform prepared from **METHYLATED SPIRIT** *to be* **PURE CHLOROFORM** *answering all the tests of the British Pharmacopœia.*

CHLORIC ETHER

(DUNCAN'S).

This is a Special Preparation, quite different from Spir. Chloroformi, B.P., perfectly miscible with water, and always of the same strength.

CASCARA SAGRADA CAPSULES,

In Boxes, at **1/6** and **2/6**. **14/-** and **24/-** per dozen.

Each Capsule equal to half a teaspoonful of Fluid Extract of Cascara Sagrada. The chief drawback to the use of this valuable drug, its unpleasant bitterness, is obviated when taken enclosed in Capsules.

BLAUD'S PILL (Fr. Pharm.) CAPSULES.

(Each Capsule equal to 1, 2, or 3 Blaud's Pills.)

IN BULK and IN BOXES at the following prices:—

	PER 1,000	PER DOZEN BOXES	NUMBER IN BOXES	RETAIL PRICE
1 Pill	10/	8/ 15/ 22/	3 doz. 6 doz. 12 doz.	1/ 1/9 2/6
2 „	15/	„ „ „	2½ „ 5 „ 10 „	„ „ „
3 „	20/	„ „ „	2 „ 4 „ 6 „	„ „ „

WHITE GUTTA PERCHA FOR STOPPING TEETH,

In 6d. and 1s. Boxes.

ESSENCE OF RENNET,

For making Curds and Whey. A thoroughly Reliable Preparation, warranted to keep for years in any climate.

In Bottles (4 oz.), 6d., (8 oz.) 1s., and (24 oz.) 2s. 6d.

„ „ 4s., „ 8s., „ „ 22s. per dozen.

J. F. MACFARLAN & CO.

MANUFACTURERS OF

MORPHIA and its SALTS, CODEIA and its SALTS,

And all other OPIUM Products.

CHRYSOPHANIC ACID. | AMYL NITRATE AND NITRITE. | ALOIN.
SULPHATE OF BEBERINE. | ERGOTIN. | SALICIN.

PURE CHLOROFORM

ANSWERING ALL THE TESTS OF THE BRITISH PHARMACOPŒIA.

ANÆSTHETIC ETHER

(As used by Dr. THOS. KEITH).

ANTISEPTIC DRESSINGS & APPLIANCES

Used in the LISTERIAN SYSTEM OF SURGERY,

Prepared from the Special Formulæ of Professor Sir Joseph Lister. Since their introduction in 1871 these dressings have continued to merit the confidence and approval of the Profession.

HAVE OBTAINED MEDALS AT VARIOUS EXHIBITIONS FOR THEIR PREPARATIONS.

May be had direct or from all Wholesale and Export Houses.

Edinburgh Address:— 17 NORTH BRIDGE.

London Address:— 71 COLEMAN STREET, E.C

Telegram Address—"MORPHIA," Edinburgh or London.

THE ONLY AWARD, EDINBURGH EXHIBITION, 1886.

FLEXIBLE GELATINE CAPSULES.

IN BULK OR IN BOXES.

These Capsules are superior to all others, and do not collapse.

Send for Samples and Prices to

JAS. ROBERTSON & CO., 35 GEORGE ST., EDINBURGH.

Schacht's Preparations.

SCHACHT'S LIQUOR BISMUTHI.

Absolntely pure. The original preparation, invented and introduced to medicine by Mr. Schacht in 1855. Its distinct superiority is universally admitted. In ½ lb., 1 lb., 2 lb., and 5 lb. bottles. Dose: 1 drachm diluted. When ordering, please to specify "SCHACHT'S."

SCHACHT'S LIQ. BISMUTHI SEDATIVUS.

Contains pure Bismuth and *Pepsina Liquida* in combination with sedatives. A formula most serviceable in the treatment of gastric pain. In 4 oz., ½ lb., and 1 lb. bottles.

SCHACHT'S SYR. CINCHONÆ ALCOHOLICUS.

A standard preparation, of definite alkaloidal strength, containing the entire medicinal properties of the finest Cinchona Bark. It is, in fact, *Bark minus the woody fibre*, and its efficiency has been proved by careful medical enquiry. Dose: Ten to sixty drops.

SCHACHT'S PEPSINA LIQUIDA (REGISTERED TITLE).

Fluid pepsine of extraordinary activity—tasteless, odourless, attractive to patients, and reasonable in price. Every teaspoonful when tested by the official B.P. process is *guaranteed* to effect the solution of 1,000 grains of albumen. Peptic power is the only test of value. Most of the fœtid and repulsive dry Pepsines have proved worthless. In 4 oz. bottles, 2*s.* 6*d.* each; and larger sizes for dispensing at a cheaper rate.

SCHACHT'S PEPSINA LIQUIDA C. BISMUTHO.

Each drachm contains in a concentrated form, besides the fluid pepsine, a full dose of Schacht's Liquor Bismuthi. Dose: One drachm. In ½ lb. and 1 lb. bottles.

N.B.—Peps. Liq. c. Bismutho Co. contains, in addition, one gr. soluble Euonymin in each drachm.

SCHACHT'S PEPSINA LIQUIDA C. EUONYMIN.

Each drachm contains one grain of soluble Euonymin. Dose: One drachm. For dispensing ½ lb. and 1 lb. bottles.

SCHACHT'S LIQ. PODOPHYLLI C. BISMUTHO.

A perfect solution of Podophyllin, containing ¼ gr. in each drachm.

SCHACHT'S LIQUOR CASCARÆ DULCIS.

A pleasant and active form of Cascara Sagrada. Dose: One to three teaspoonfuls diluted. In 4 oz., ½ lb. and 1 lb. bottles.

SCHACHT'S INFALLIBLE RENNET.

An entirely new Essence, perfectly reliable, for the coagulation of Milk, and the production of Junkets and Curds and Whey. It is a preparation of the most wholesome nature, that *contains no salt*, and has no special taste, smell, or colour. In large bottles at 1*s.* of all Chemists. This Essence keeps well in any climate.

The above Preparations can be procured from Messrs. Barclay & Sons, W. Edwards & Son, and the Wholesale Druggists; or direct by post from

GILES, SCHACHT & Co., Clifton, Bristol.

LEADING LINES — LARGE PROFITS.

GELATINE CAPSULES.

FLEXIBLE, HARD, AND PERLES.

We desire to call the attention of the Trade to our Goods, for which we claim the following distinct advantages:—**QUALITY.** The Capsules are beautifully formed, the membrane perfectly soluble, and the medicines used are first-class and of full weight, so that therapeutic activity can be relied upon.—**PRICE AND TERMS.** Our prices are low, we supply any quantity, and arrange, if necessary, to box the goods with labels printed with the Chemist's own name and address, free of charge. We shall be glad to execute a trial order, which, however small, will be sent post free, feeling assured that such will satisfy purchasers, and thus secure future commands.—**FOR SHIPPERS AND EXPORTERS.** We manufacture and supply Capsules which are specially designed to withstand extremes of temperature.

COMPRESSED PELLETS

Our prices for Compressed Goods have now been materially REDUCED. We have installed improved and superior machinery, so as to enable us to produce a much better article than formerly. We supply the Pellets in bulk or in tin boxes for retail. The latter can be labelled with the Chemist's own name and address without extra charge.

NOTE.—We call particular attention to the New Remedies which we supply in this form, viz., ANTIPYRIN, SULPHONAL, PHENACETIN, CASCARA SAGRADA, &c.

PRIVATE FORMULÆ.—We fill Capsules and compress Drugs into Pellets, either from Customers' own private receipts, or *with* ingredients supplied by them.

B. HOOPER & CO.

MANUFACTURING CHEMISTS,

43 KING WILLIAM STREET, LONDON, E.C.

COMPETITION IN PRICE AND QUALITY DEFIED.

SAMPLES FREE OF CHARGE.

Dr. J. COLLIS BROWNE'S
CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD, and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that 'Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as deliberately untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.'

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the Court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresenting the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never used any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the Inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is now incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

ORIGINAL AND



ONLY GENUINE.

FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

Apothecaries' Hall,	London	Frazer & Green,	Glasgow	Morson, T., & Son,	London
Allen, Hanbury & Co.,	"	Gale & Co.,	London	Newbery & Sons,	London
Baiss Brothers,	"	Giles & Son,	Clifton	Oldham, G., & Co.,	Dublin
Banks & Richards,	Birmingham	Goulding, Messrs.	Cork	Parsons & Richardson,	Leicester
Barron, Harvey & Co.,	London	Gratton & Co.,	Belfast	Peake, Allen & Co.,	Dublin
Bell, John, & Co.,	"	Grimwade, Ridley,	London	Raimes & Co.,	York
Bourne & Taylor,	"	Grindley & Son,	Chester	Raimes & Co.,	Edinburgh
Corbyn & Co.,	"	Hearon, Squire & Francis,	London	Sang & Barker,	"
Cox & Gould,	"	Hodgkinson, Tonge & Stead,	"	Sanger, J., & Sons,	London
Curling & Co.,	"	Hopkins & Williams,	"	Sim, James, & Co.,	Aberdeen
Curtis & Co.,	"	Hovenden, R., & Sons,	"	Smeeton, W.,	Leeds
Davy, M'Murdo & Co.,	"	Hunt & Co.,	Exeter	Southall & Co.,	Birmingham
Dobbin, W., & Co., Limited	Belfast	Hunt, A., & Co.,	"	Sutton, W., & Co.,	London
Drew, Barron & Co.,	London	Johnson, J. H. & S.,	Liverpool	Tomlinson, Hayward & Co.,	Lincoln
Drew, B., & Alexander,	"	Langton, W., & Co.,	London	Treacher, Hodgkinson & Co.,	London
Dunn & Company,	"	Lynch & Co.,	"	Westrup, J. B.,	Kensington
Edwards, W.,	"	Mander, Weaver,	Wolverhampton	Westwood & Hopkins,	London
Evans, Gadd & Co.,	Exeter	Marsden & Sons,	London	Woolley, James,	Manchester
Evans, Lescher & Webb,	London	Maw & Son,	"	Wyleys & Brown,	Coventry
Ferris & Co.,	Bristol	Meggeson & Co.,	"	Yates & Co.,	London
Foulger, S., & Son,	London	Mackay, John, & Co.,	Edinburgh		

After these public statements in a Court of Equity, and subsequent confirmation by the trade at large, no Chemist can conscientiously use or sell any other compound for Chlorodyne without committing a breach of faith, unjust to patient and physician. The value of the remedy *alone* creates the great demand.

Sold in Bottles—1s. 1½d., 2s. 9d., 4s. 6d., and 11s. Usual Discount to the Profession.

SOLE MANUFACTURER,

J. T. DAVENPORT, Pharmaceutist,

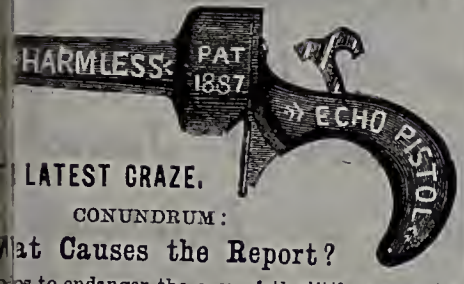
33 GREAT RUSSELL STREET, BLOOMSBURY SQUARE, LONDON.

VIRGIN CORK.

have contracted for a large quantity of Virgin Cork for season 1890. Superior quality, lightest and largest pieces.

Bales of 112 lbs., 13/-; Half Bales, 7/-.

AMERICAN "ECHO" PISTOL.



LATEST CRAZE.

CONUNDRUM:

What Causes the Report?

Drops to endanger the eyes of the little ones, but a loud report to please the boys. The most wonderful of Toys. It will throw a Pea thirty feet with accuracy. Packed in boxes of One Doz., 3/6 per doz. Per gross, 40/. Sample by post 6 stamps.

THE DEMON BEETLE TRAP.



THE MOST INGENIOUS YET INVENTED.

Has been proved to CATCH large numbers continuously where other Traps have failed.

Price, per dozen, 9/-.

FAIRBANK'S SCALES & WEIGHING MACHINES.

We purchased 263 of these high-class Scales, viz.: Platform Machines, Dormant Warehouse Weighing Machines, Weighbridges, &c. They are now stayed in one of our Warehouses, and we offer them at considerable reduction from ordinary prices.

BROWN PAPER.

	Per cwt.
Double Imperial, 120 lbs.	10 6
" "	12/6
" "	15/6
" 80, 100, 120 lbs. ..	17/6
" 140 lbs. " " " ..	20/0
" "	12/6
" "	15/6
" "	17/6
" "	20/0

THIN BROWN PAPER.

Weight 17 lbs.	per ream	2/7
" 28 lbs.	"	4/0

EASLEY'S AMERICAN LEMON JUICE EXTRACTOR,

Sometimes called the "Last Drop" Lemon Squeezer.

For which we are Sole Agents.



☞ Every Genuine Easleys Patent Lemon Juice Extractor bears name and date July 10th. There are many imitations.

☞ For Quality, Cleanliness, Convenience, and Cheapness, this make is unequalled.

In subdivided boxes of 1 dozen, 2-/ per dozen. Special Prices to Merchants and Shippers for 1 gross and upwards.

BROOKE'S SOAP.

(MONKEY BRAND).



WON'T WASH CLOTHES.

Cases of 100	Bars 25/- net.
Cases of 60	" 15/- "
Boxes of 48	" 6/3 "

IN LONDON OR BRISTOL.

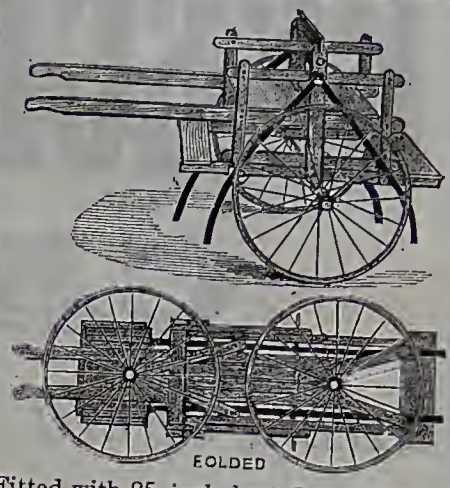
USED IN A MILLION HOUSEHOLDS!

Advertised in One Thousand Newspapers!

All Drug Houses will supply; if difficulty in obtaining in any part of the world, write or wire—

Sole Consignees "FORDHAMS LONDON."

THE "ST. PANCRAS" FOLDING DOG CART.



Fitted with 25-inch best Bicycle Wheels, with Solid Brass Caps and Indiarubber Tyres.

The construction of this cart is a decided improvement upon any others. It can be folded up flat as shown. The great advantages are that it can be stood up in a small corner, or hung up on a nail when not in use. It can be taken by rail or boat as personal luggage. Will pack very closely for shipment. **Six carts** occupy the same space as **One** of other makes, and for strength it is not equalled, even at double the cost.

In white wood, varnished, 15/6 each net.
In super pitch pine ... 17/6 "

'UNBREAKABLE' OVAL TUBS



Light, Strong, Durable. No hoops to drop or rust off.

Measurement 16 inches. Enamelled White inside, Marbled outside. No House complete without one.

21/- per doz.

A New Illustrated List, with 30 articles in this most Saleable Ware, Free by Post.

SMALL HAND PAPER.

Splendid value!

"Bought before the rise."

14 by 20	Per Ream,	1/0
17 " 25	" "	1/4
18 " 28	" "	1/6
20 " 30 thin	" "	1/9
20 " 30 manilla	" "	2/3
20 " 30 11 lbs.	" "	2/6
20 " 30 super, 13 lbs.	" "	3/3
20 " 30 " 15 lbs.	" "	3/9
20 " 30 " 17 lbs.	" "	4/3

Sample of any of above free.

B. FORDHAM & SONS, LIM., 36 to 40 YORK ROAD, KING'S CROSS, LONDON, N.

Also see page 72.

BEECHAM'S PILLS

CAUTION.

THE PUBLIC ARE HEREBY INFORMED that by an order made by Mr. Justice Stirling on the 16th day of June, 1888, in an action in the High Court of Justice (Chancery Division), Beecham v. Pritchard, the Defendant was perpetually restrained from infringing the Plaintiff's Trade Mark, and from printing, writing, or marking on or affixing to, or causing or permitting to be printed, written, or marked on, or affixed to, any show or other cards, or labels, or pill boxes, the words "BEECHAM'S PILLS," or any mark calculated or contrived so as to lead to the belief that the Pills sold by the Defendant are the Plaintiff's Pills.

PROCEEDINGS WILL BE TAKEN against any person selling Pills as "BEECHAM'S PILLS" other than those manufactured and supplied by the Plaintiff, Thomas Beecham, of St. Helens, Lancashire, the Proprietor of "BEECHAM' PILLS."

OPPENHEIM & MALKIN,
61 Lord Street, Liverpool,
Solicitors for the said Thomas Beecham.

June, 1888.

PURE

CARBONATE OF LITHIA

and all other Lithia Salts.

MERCURIALS

Calomel, Corrosive Sublimate, Oxides, &c.

IODOFORM

Chloral, Terpene, Osmic Acid, Tannin, Tartar Emetic.

LIQUID CHLORIDE OF METHYL, for the treatment of Rheumatism, Neuralgia, &c.

GRAND PRIX, PARIS EXHIBITION, 1889.

Telegrams, "Fuerst," London. Telephone No. 462.

Wholesale from FUERST BROS., 4 Copthall Buildings, London, E.C.

Sole Agents for BILLAULT, Rue Sorbonne, PARIS.

N.B.—Stock of the above kept in London.

MENTHOL CONES.

For quotations of all descriptions see Druggists' Sundries List of undersigned.

See Advertisement, page 25.

EVANS, SONS & CO.

LIVERPOOL.

LONDON: EVANS, LESCHER & WEBB, 60 Bartholomew Close.

CANADA: EVANS AND SONS, LD., Montreal, Toronto; and Victoria, British Columbia.

LEO & CO.

MANUFACTURERS OF

COMPRESSED

CHLORATE OF POTASH,

Chlorate of Potash and Borax,

&c., &c.



Our Goods are guaranteed the Best of any of the cheap Compressed Goods in the Market.

They are supplied by all the Wholesale Houses.

Quotations given for large and small quantities.

8 CREECHURCH LANE, LONDON, E.C.

FOREIGN SPECIALITIES & MEDICINES.

REVISED PRICE LIST.

ROBERTS & CO.

FOREIGN AND ENGLISH CHEMISTS,

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2/9..Anbergier's Syrup	26/3
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6/6..Bay Rum	57/
5/6.. Ditto	31/
2/ ..Belloc's Charcoal	15/4
1/9.. „ Lozenges	14/5
4/6..Blancard's Pills	32/5
2/6.. Ditto	18/
6/ ..Brou's Injection	27/
6/ Bngeaud's Wine	36/
4/ Bully's Vinegar	32/5
2/ .. Ditto	16/3
4/6..Candé's (Lalt Antéphiliq.)	39/8
4/6..Capsules Bromide Camph.	45/
4/6..Capsules Matico	36/
4/6.. „ Raquin	36/
4/6.. „ Mathey Caylus	27/
4/6..Chassaing's Wine	38/9
2/9.. „ Pills	24/4
4/6..Clin's Bromide Cam. Dragées	45/
5/ ..Eau Botot (Genuine)	40/1
3/ .. Ditto	24/4
2/6..Esplo's Cigarettes	13/6
6/ ..Elixir de Coca	56/9
2/9..Flon's Syrup	22/6
2/ ..Gayetty's Paper	15/4
2/3..Granules Arsen. Acid	13/6
2/9.. „ „ Iron	14/5
2/9.. „ „ Soda	15/4
2/9..Grimault's Syrup Lime	23/5
2/3..Guyot's Gondron	18/
11/..Laville's Gout Tincture	91/10
11/.. „ „ Pills	91/10
2/3..Papier Fayard	13/6
1/1½ Ditto	7/3
4/ ..Papier Fruneau	24/4
2/3.. Ditto	14/5
1/9..Pâté Aubergier	15/4
1/9.. „ de Berthé	15/4
2/9.. „ de Cooa	24/4
1/9.. „ de Georgé	14/5
1/1½ „ Ditto	9/
1/6.. „ de Nafé	13/6
1/9.. „ Regnauld	14/5
7/ ..Pierlot's Valerian	59/5
2/9..Rabuteau's Drgées Ferrug.	24/4
7/0..Rabuteau's Elixir Ferrug.	65/
2/9.. „ Sirop „	24/4
4/0..Racahout	31/
4/6..Reynal's Bougles	37/10
2/9..Ricord's Injection	24/4
4/6.. „ Capsules	36/
9/ .. „ Syrup..90/;	4/6; 42/
1/6..Star Paper	11/
2/9..Vallet's Pills	22/6
1/9.. Ditto	14/5
4/6..Veloutine (Whte,Pnk,Yel.)	37/1
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4/6..Valentine's Meat Juice	38/
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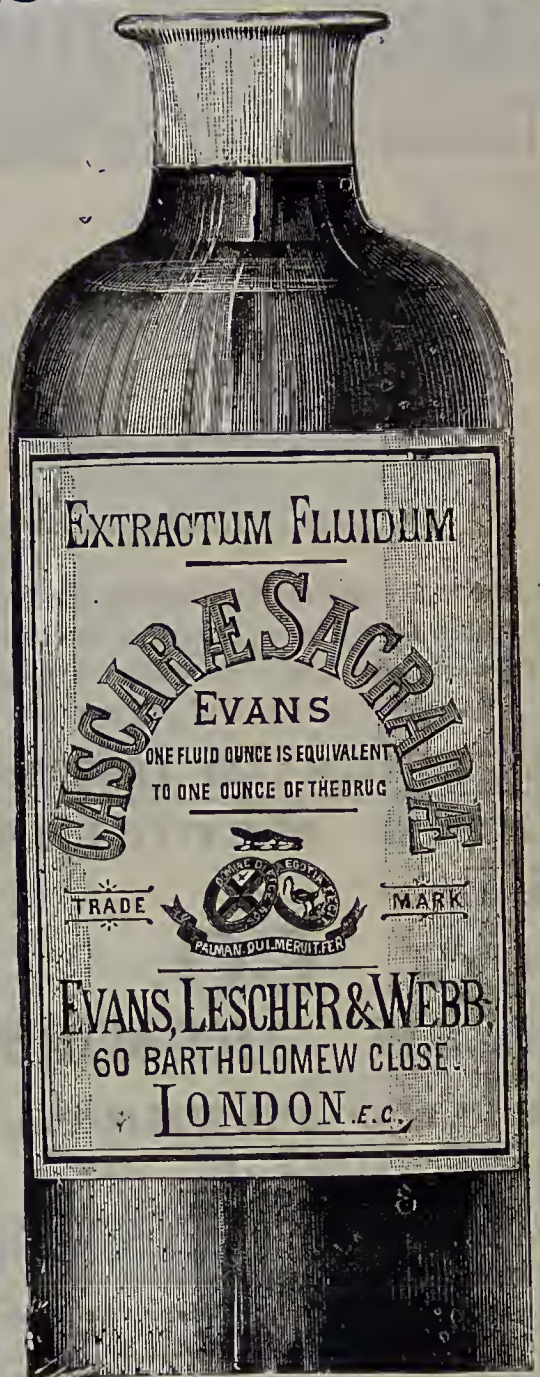
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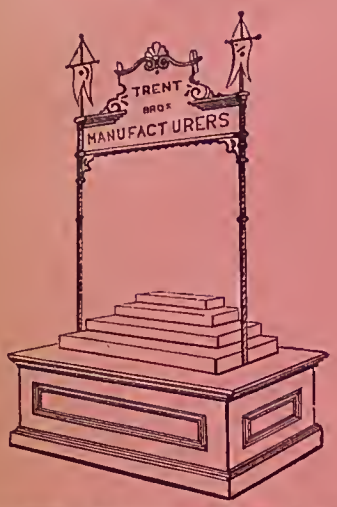
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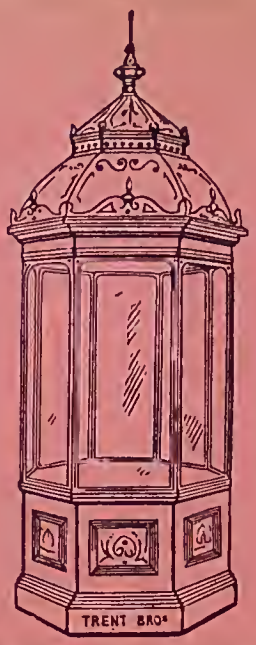
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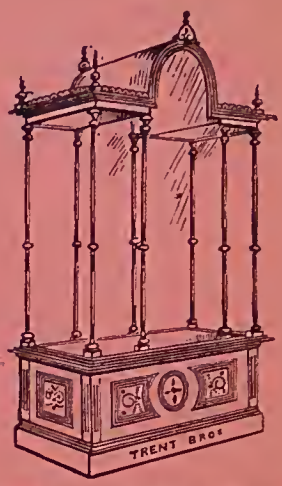
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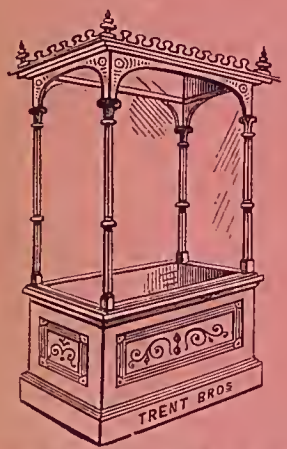
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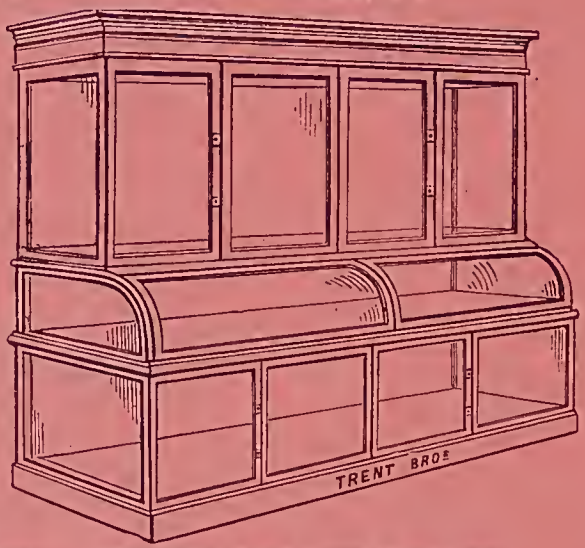


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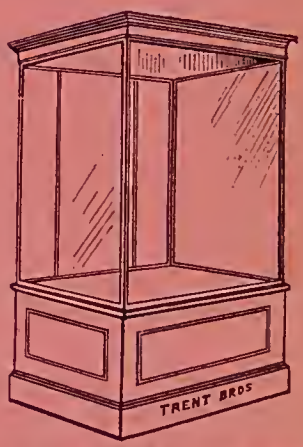
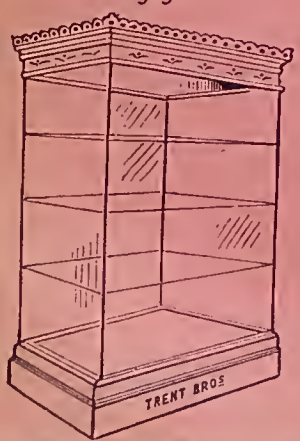
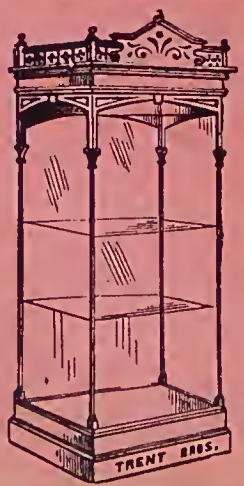


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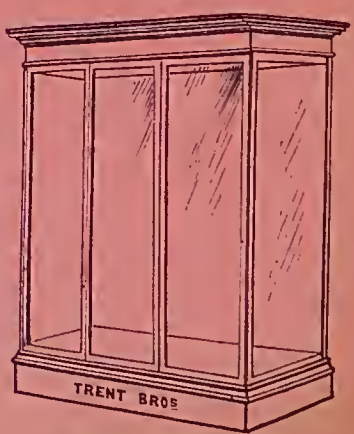


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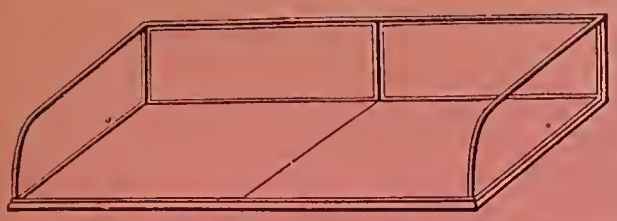
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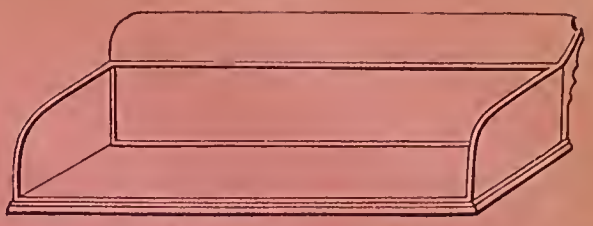
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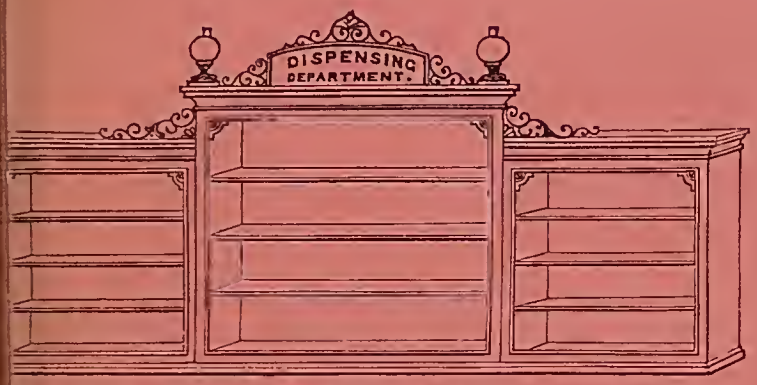
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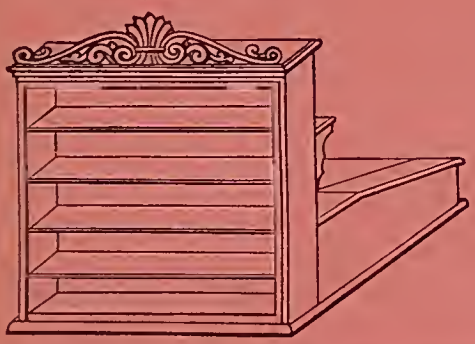
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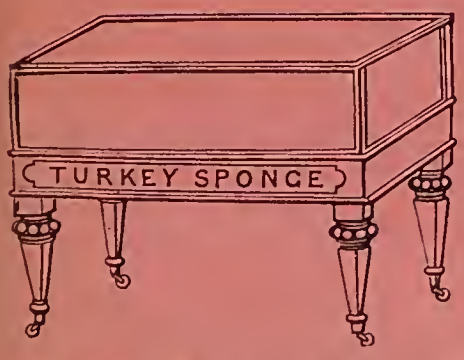
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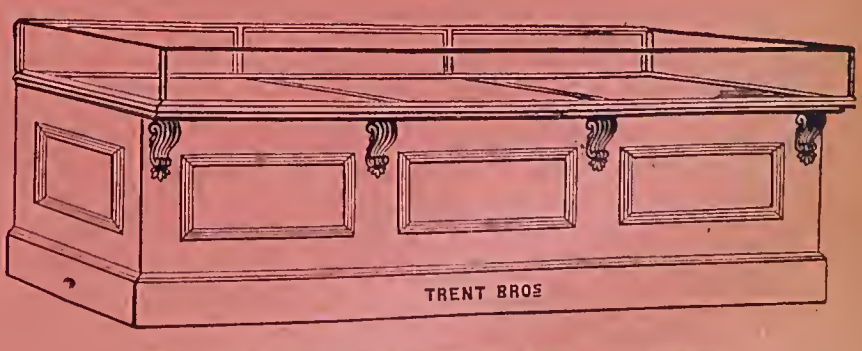
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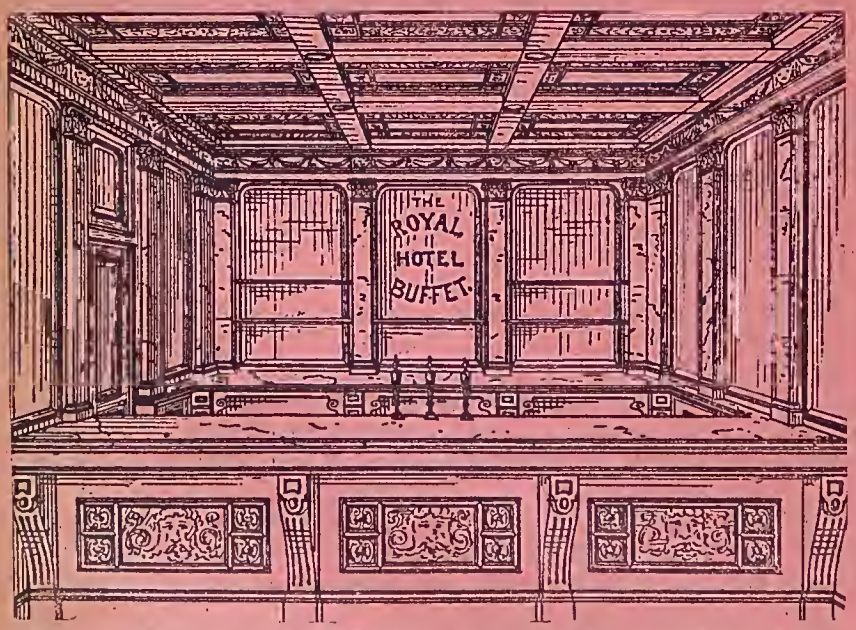
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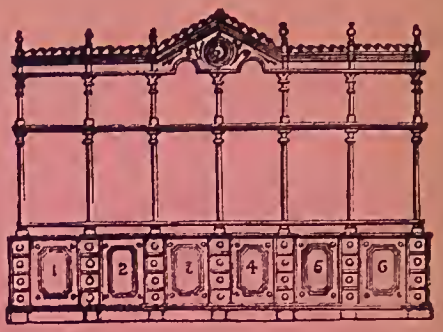
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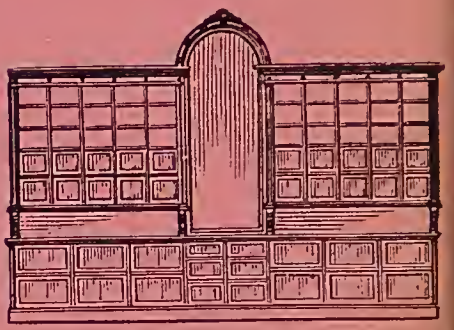
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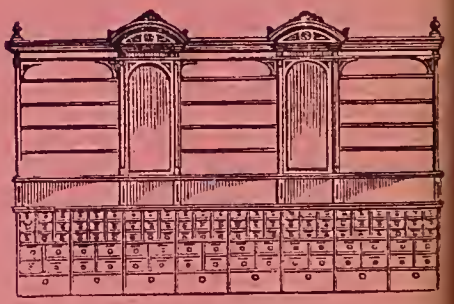
Grocers' Fixtures.

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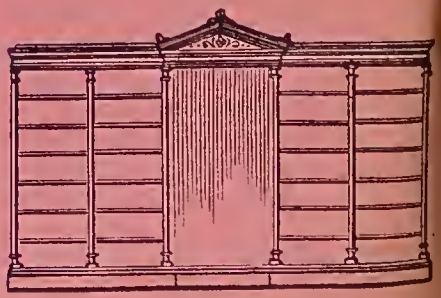
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Extract from 'The Lancet,' 30th November 1889.

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William B———at the age of three began to suffer from eczema; it originated, without doubt, from injudicious feeding. The face was first affected, and subsequently the whole surface of the body. At different times the limbs, back, face, and neck would be most severely attacked. The disease proved intractable for a number of years, during which time he was twice in hospital, under the care of one of the most eminent dermatologists, and although much good was gained at the time, the improvement was not maintained for more than a few weeks. In February of this year I commenced the use of 'Oleum Deelinæ.' It was first applied to the left forearm, and in forty-eight hours the result was so good that I had it painted over the whole affected surface—nearly half of the body—night and morning. In six weeks the disease was practically cured, after thirteen years' duration, and although the patient has some occasional reminders of the old enemy, and the skin is still harsh and thickened, yet he is now, after eight months, capable of doing a fair share of daily work as an artisan, while his general health, which had considerably suffered, is proportionately improved.

CRAIGHOLM, UPPER CLAPTON, LONDON, E.

I HAVE lately tried your 'Oleum Deelinæ' in a case of eczema with good results, and I am anxious to try it in other cases.

H. WHEELER, L.R.C.P. Lond., etc.

'OLEUM DEELINÆ' is the only remedy I have found after five years' suffering from eczema.

HENRY WEIR.

SOUTHPORT, 12th December 1887.

I HAVE tried 'Oleum Deelinæ' in a very bad case of eczema with the most satisfactory results. It is a very valuable preparation.

EDWARD BALL, L.R.C.P.

FYDER, NEAR NEWPORT, 29th May 1888.

I AM very glad to say that the 'Oleum Deelinæ' has done much good in a case of obstinate eczema in a child where most of the ordinary remedies proved almost ineffective. I am sure this oil has a great future.

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See Miss Ormerod's Report.

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WHITE, YELLOW, and RED.

Packed in Tins, 1, 5, 10, 50, and 100 lbs.

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Price 1s. per Tube.

Invaluable to all Singers, Actors, and Public Speakers.

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Recommended by the Faculty as the perfection of a cosmetique for the face or pomade for the hair.

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WARBLE MAGGOT OINTMENT.

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,, 3B, 4, 4B	for 3 to 6 oz.	0	10	1	1
,, 5, 5B	for 8 oz.	1	0	1	4
,, 5½	for 10 oz....	1	1	1	5
,, 6	Pints...	1	2	1	7
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The sizes 3B, 4B, 5B, are broader at the opening, and better adapted for thick-lipped bottles, or where short corks are used.

The charge for *stamping in relief* names and addresses on the caps 4d. per gross extra (for a minimum of 10 gross).

Dies are not charged; but only one can be made for a minimum order of 10 gross Caps, consequently, to have the inscription proportionate, an order for 10 gross should comprise at most two consecutive sizes.

Printing address (letterpress) costs half as much as stamping in relief, viz., 2d. per gross extra (minimum 10 gross of one size). No charge is made for printing in one colour upon the tops of Caps where an order is given for at least one hundred gross of a size.

HUNT'S BOTTLE CAPS

Can be rapidly fastened on to the necks of bottles with ELASTIC BANDS by means of

HUNT'S CAPPING STICKS, Prices 1d. & 2d. each

ELASTIC BANDS.

For sizes 1 to 3 ... ... 3d. per gross. | For sizes 3b to 39 ... 4d. per gross.

SOLD BY ALL DRUGGISTS' SUNDRYMEN. MANUFACTURED BY

W. F. HUNT & CO.,

Factory: 6—10, Lexington Street, W.; Depôt: 22, CHARTERHOUSE BUILDINGS, E.C.,

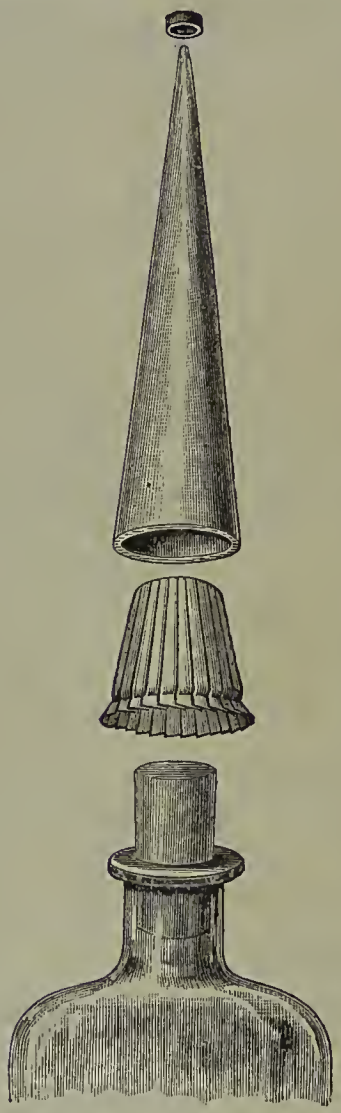
LONDON, ENGLAND.

London Depôt of **DIGNE'S ENAZYMES,** *which replace with advantage Pills. Capsules, and other methods of administering Medicine, from 2/10 per 1000.*

ENAZYMES *are discs of wafer paper, stamped concave. They are filled with doses and closed up with facility, celerity and elegance by means of the apparatus DIGNE'S COMPRESSO-DOSEUR and the EXPEDITIF.*

HUNT'S SYSTEM

FOR COVERING CORKED & STOPPERED BOTTLES.



SIMPLE.

Elastics 3d. per gross.

Sticks 1d. each.

Caps 8d. per gross.



COMPLETE.

CROMPTON & Co.,

BOLD STREET, BOLTON

AND

MILLER ST., MANCHESTER.

COLOUR GRINDERS AND MIXERS;

MANUFACTURERS OF AND DEALERS IN ALL KINDS OF

olours, Drugs, Oils, Paints, Varnishes and Chemicals, for Painters, Paper-Manufacturers, Paper-Stainers, Dyers, leachers, Calico-Printers, Finishers, Sizers, Stiffeners, and Soap-Makers.

Messrs. ELLIS CROMPTON & Co., having their own Analyst, are epared to match all Colours, Chemicals, Drugs, and Sizes used by Paper-kers, Paper-Stainers, Dyers, &c.; and guarantee deliveries of uniform ality.

rompton's Spindle and Cylinder Oils:

o meet the requirement (Collins' Standard) of the Insurance Offices.

SPECIALITIES:

CROMPTON & CO.'S

ODORLESS DISINFECTANT,

FOR ALL SANITARY PURPOSES.

Being free from smell it is unlike and for every purpose superior to Carbolic or so called Carbolic Disinfectants.

Kills all foul and noxious smells. Is specially fitted for use in the House-hold, Hospitals, Workhouses, Asylums, and Public Institutions.

Drains, Sinks, Water-closets, Urinals, Stables, Shippons, and Kennels are rendered free from vermin and lice, and are made sweet, wholesome, and healthy by its use.

W. Hepworth Collins, Esq., F.C.S. &c., Analyst, Bradford Buildings, Bolton, says:—"Crompton's Odorless Disinfectant is quite free from smell. It is a most excellent disinfectant and deodorant, and is eminently suited for all Sanitary Purposes."

CROMPTON'S SOLUBLE OINTMENT

For Killing Warble Maggots in Cattle, and for Fly attacks. Dissolves readily in water and makes an excellent dressing, and as a Sheep Dip cannot be surpassed.

Crompton's Starches, Alum & Antichlor

For Paper Makers and Stainers.

SOLE MANUFACTURERS—

ELLIS CROMPTON & CO.,

BOLD STREET, BOLTON, AND MILLER STREET, MANCHESTER.

"Pineotas."

THE IMPROVED NATURAL DISINFECTANT.

TRADE MARK.



A pleasant Distilled Extract from the Pine.

Non-poisonous, most agreeable and fragrant in smell, quite safe in use.

TO THE TRADE.

These Goods are got up in the best possible style.

No Retail Prices are marked on any of our Goods.

TERMS—
See other side.

As used for Disinfecting the Sanitary Institute Exhibition, Worcester, 1889.

HANDSOME SHOW TABLETS SUPPLIED FREE.

Pineotas Disinfecting Powder.

A White Powder	£10 per ton.
In Bags or Casks, 1ewt. and upwards ...	12s. per ewt.
In handsome large decorated Tins, to Retail at 1s. each	6s. per doz.
Ditto ditto double size, to Retail at 1s. 6d. each	9s. „
½lb. Paekets, handsomely labelled	8s. per gross.
1lb. „ „ „	15s. „

Pineotas Disinfecting Fluid.

(Miseible with Water.)

Large 1s. Bottles	6s. 6d. per dozen.
In Drums, Jars, or Casks	3s. 6d. per gallon.

Pineotas Crude Fluid.

Reecommended for Disinfecting Drains, Sinks, Stables, W.C.'s, &c.

Large 1s. Bottles	6s. per dozen.
In Drums, Jars, or Casks	3s. 6d. per gallon.

Pineotas Disinfecting Oil.

(A Sherry Colour.)

Large 1s. Bottles	6s. 6d. per dozen.
In Drums, Jars, or Casks	10s. per gallon.

Pineotas Disinfecting Sawdust.

For Stables, Dog Kennels, &e. In ½cwt. or 1ewt. bags, 15s. ewt.

Pineotas Disinfecting Soaps.

(28lb. and 56lb. Boxes, and 112lb. packages free.)

1lb. bars are in paper wrappers.

	No. 1.	No. 2.
1lb. bars, in 28lb. boxes	9s. box	7s. box.
„ 56lb. „	17s. „	14s. „
„ 112lb. packages... ...	33s. „	27s. „

Toilet Soap, perfumed (Four 6d. Tablets = 1lb.), double wrapped and in tinfoil, in Fancy Cardboard Boxes, 12s. per dozen boxes.

Pineotas Soft Soap.

(Kegs or Casks Free.)

1lb. Tins	7s. dozen.
2lb. „	13s. „
7lb. „	38s.

¼, ½, or 1 to 5cwt. kegs or easks, 34s. per ewt.

HAMILTON & CO., HIGH STREET, WANDSWORTH, LONDON, S.W.

P.T.O.] [P.T.O.

REDUCED QUOTATIONS. 1890.

HAMILTON & CO.'S

IMPROVED CARBOLIC

GOVERNMENT DISINFECTANTS,

IN POWDER, FLUIDS, SOAPS, &c.

Office: 98, HIGH STREET, WANDSWORTH, LONDON, S.W.

ALL GOODS DELIVERED FREE TO CUSTOMERS IN LONDON AND THE SUBURBS,
or to any London Rail, Goods Depôt, Wharf, or Dock, at the Low Wholesale Prices Stated Below.

NO PRICES MARKED ON ANY OF OUR GOODS.

TO WHOLESALE HOUSES.—Any of our Carbolic Goods can be Packed with your own Name and Brand, &c., by Agreement.

TERMS—CASH with ORDER, LESS 5 per cent.; or NETT CASH in a MONTH. All Cheques and Remittances to be made payable to HAMILTON & CO., or Order, and crossed. Cash must accompany all Foreign Orders. SPECIAL QUOTATIONS given to LARGE BUYERS.

Carbolic Pink Powder.

	No. 1. Per cwt. s.	d.	No. 2. Per cwt. s.	d.	No. 3. Per cwt. s.	d.
1cwt. Bags or Casks ... ... (1 ton lots & upwards, £6 per ton.)	7	0	9	0	12	0
1lb. Packets	11	0	13	0	per gross	
½lb. „	6	0	7	6	„	
Handsome Large Round Black and Gold Decorated Tins, to Retail at 9d. or 1s. each ...	per doz. 4		6		6	0
Ditto ditto (Abont double Quantity) To Retail at 1s. or 1s. 6d. each	„ 6	0			7	6

These Tins are the Largest in the Market.

White 15 per cent. Carbolic Powder, per cwt. 8s.
Ditto in Tins, 1s. size, 6s.; 1s. 6d. size, 8s. per doz.

Carbolic Acids and Fluids.

	Per Gallon. s.	d.	s.	d.	s.	d.
*Brown (Strong) Carbolic Acid	1	3	1	6	2	0
*Pale Carbolic Acid, 95 per cent.	—		—		2	6
Brown „ 65 per cent.	—		—		2	0
*Sanitary Fluid or Creosol (To be used with Water 1 part to 100 parts, making a Pleasant Milky Fluid)	—		2	6	3	0
Pink Soluble Carbolic Fluid ... (Will Mix with Water.)	—		1	6	2	0
Red Inodorous Fluid ... ... (Similar to Condy's).	—		2	0	2	6

* Special Quotations for Quantities.

Carbolic Acid Crystals 34 % & 40 %

In 1lb. and 7lb. Bottles and Iron Drums, at Market Prices.

Carbolic Acids and Fluids in Bottles.

	Per Doz. Imperial Measure. ½ pints. s.	d.	Pints. s.	d.	Quarts. s.	d.
Pink Soluble Carbolic Fluid ... (Will mix with Water.)	4	6	8	0	14	6
Red Inodorous Fluid ... ... (Similar to Condy's.)	5	0	9	6	18	0
Brown (Strong) Carbolic Acid...	5	0	9	0	17	6
Sanitary Fluid or Creosol (To be used with Water, 1 part to 100 parts, making a Milky Fluid)	5	0	9	6	18	0
Pale Carbolic Acid, 95 per cent. (No. 5)	6	0	10	0	19	0
Brown Carbolic Acid, 65 per cent.	5	0	9	0	17	0

Carbolic Soaps (The Best).

(Boxes Free.)

1lb. Bars, in paper wrappers, 22s., 24s., 26s., 28s., and 30s. per cwt.
Best quality, in ¼lb. Tablets, 7lb. & 14lb. boxes 35s. cwt.
Best quality, in ½lb. Tablets, 14lb. boxes ... 30s. „
Toilet Soap, perfumed, 10 per cent. acid, 4oz. 6d. tin foiled, Oval Tablets in 3 tablet card boxes, 9s. 6d. per doz. boxes.

Carbolic Soft Soap (Best Qualities only).

(Kegs and Tins Free.)

6d. Tins ... ... 4s. 6d. doz.
1s. Tins ... ... 8s. 0d. „
Kegs and Casks ... ... 28s. and 30s. cwt.
Tins (7lb. and 14lb.) ... ... 35s. and 40s. „

Chloride of Lime.

1, 2, and 2½cwt. Casks ... ... 11s. cwt.
5cwt. Casks ... ... 10s. „
In Boxes. Jars. Casks, &c. (28lb. to 56lb.) 12s. „

HAMILTON & CO., HIGH STREET, WANDSWORTH, LONDON, S.W.

FRATELLI DE PASQUALE & CO.

LARGO MUNIZIONE, MESSINA, SICILY,

MANUFACTURERS, ESTABLISHED ON THE VERY GROWTH PLACE, FOR THE FINEST

ESSENTIAL OILS

Of Lemon, Bergamot, Sweet and Bitter Orange. Recently Awarded at the Exhibitions of

CALTANISETTA, 1879—A Gold Medal and 200 Liras for Invention of Machinery to the use of their Manufactory, and Silver Medal for Excellence of Produce.
MILAN, 1881—A Bronze Medal for Excellence of Produce.
MELBOURNE, 1881—A First Order of Merit for Excellence of Produce.
MESSINA, 1882—A Gold Medal and 150 Liras for an ample set of Machines to the use of their Manufactory, and a Bronze Medal for Excellence of Produce.

A first trial order is quite sufficient to remain convinced of the Excellence of our Essences.

Samples and all particulars may be had from our Wholesale Agents—

SAML. LAMBERT & CO., DRUG BROKERS, 132 Fenchurch St., LONDON.

F. H. FAULDING & CO.

Wholesale and Manufacturing Chymists & Druggists,

ADELAIDE (SOUTH AUSTRALIA).

ESTABLISHED 1845.

LONDON OFFICE:—132 FENCHURCH STREET, E.C.

J. BERNHARDI, LEIPZIG.

BOTANIC DRUGS for Home & Export.

GERMAN TINCTURES IN BOND.

SCHOELLKOPF, HARTFORD & MACLAGAN, LIM.

3 CEDAR STREET, NEW YORK.

Cable Address—"JUBILANT NEWYORK."

SPÉCIALITÉ:—AMERICAN DRUGS—ENGLISH SUPERVISION.

Largest Dealers of "CASCARA SAGRADA" in the World.

SOLE BRITISH AGENTS—

SAML. LAMBERT & CO., 132 Fenchurch St.

SHARLAND & CO.

ESTABLISHED 1870.

WHOLESALE DRUGGISTS AND MANUFACTURING CHEMISTS,

LORNE, COBURG, AND VICTORIA STREETS, AUCKLAND, N.Z.,
Lambton Quay, Wellington, and

119 & 120 LONDON WALL, E.C.

Buying Agencies undertaken on the best terms. Special Rates to Wholesale Houses.
References given and required. Samples and Quotations solicited.

VICTORIA.

ROCKE, TOMPSITT & CO.,
WHOLESALE DRUGGISTS,

MELBOURNE,
AND
119 & 120 LONDON WALL, E.C.

Samples and Quotations solicited. *Agencies undertaken on the most advantageous terms.*

Wholesale Depot for Sander & Son's Pure Volatile Eucalyptus Oil (Eucalyptol), and Importers of Oil of Eucalyptus.
Wholesale Agents—Messrs. Hodgkinson, Prestons & King, 81 Bishopsgate Street Without, E.C.

CLINICAL THERMOMETERS.

For quotations of all descriptions see Druggists' Sundries List of undersigned.

See Advertisement, page 25.

EVANS, SONS & CO.

LIVERPOOL.

LONDON: EVANS, LESCHER & WEBB, 60 Bartholomew Close.

CANADA: EVANS AND SONS, LD. Montreal, Toronto; and Victoria, British Columbia.

MANUFACTURERS
OF
GOODS ADAPTED TO THE DRUG TRADE
ARE OFFERED
Special facilities for the Sale of such in the United States
BY
E. C. RICH CO., Ltd.

167 Chambers Street, NEW YORK, U.S.A. 201 State Street, BOSTON, U.S.A.

Satisfactory references. Correspondence solicited.

DURBAN, NATAL.

THE NATAL DRUG CO., LD.

(Late Bentley & Vanderpump),
WHOLESALE DRUGGISTS,
IMPORTERS, AND MANUFACTURING CHEMISTS.

AGENCIES undertaken for the Sale of PROPRIETARY ARTICLES, and other Goods suited to the SOUTH AFRICAN MARKETS.

LONDON AGENTS:
DAVIS & SOPER, Bury Street, St. Mary-Axe, LONDON.
Telegraphic Address—"REPOSNOS LONDON."

DURBAN, NATAL.

INDIA.

PEAKE, ALLEN & CO.

CHEMISTS, DRUGGISTS,
AND
GENERAL MERCHANTS,
LUCKNOW, OUDH, INDIA,

Possess exceptional facilities for the introduction of NEW SPECIALITIES, Patent Medicines, Druggists' Sundries, Perfumery, &c.



ESTABLISHED 1870

PROSSER, TAYLOR & CO.

(LATE BERKLEY, TAYLOR & CO.),

WHOLESALE DRUGGISTS AND IMPORTERS,

AND

MANUFACTURING CHEMISTS

BRISBANE, QUEENSLAND.

Importers of Drugs, Chemicals and Druggists' Sundries, Patent Medicines and Perfumery; Surgical Instruments, Photographic Sundries, Confectioners' and Dyers' Goods, Dental Sundries, Soda Water Machinery, Bottling Racks, Egg-shape and Lamont's Soda Water Bottles, Corks, Essences, Labels, and all Cordial Makers' Requirements.

All parts of Queensland visited at regular intervals by experienced Travellers.

Agencies solicited from Firms who are prepared to actively introduce their Manufactures into the Colony.

LONDON AGENTS—

MESSRS. LAUGHLAND, MACKAY & BAKER, 50 LIME STREET, E.C.

DR. SOULE'S
HOP BITTERS

NOTICE TO THE TRADE.

The HOP BITTERS CO., Ltd., upon reconstruction, in consequence of the numerous imitations of their world-renowned medicine, have deemed it desirable to bring the name of the Originator of the celebrated "Hop Bitters" (Dr. Soule) more prominently to the notice of the public, in order to prevent future impositions. They have therefore altered their advertisements accordingly, of which you will please take notice.

The irritation which unfortunately existed during the period of the late administration will effectually be removed by the present management, and the amicable relations with the Trade which formerly existed will, it is hoped, be in future maintained.

41 FARRINGDON ROAD, LONDON, E.C.

SYMES & CO. LIVERPOOL

PHARMACEUTICAL CHEMISTS, EXPORT DRUG MERCHANTS,

IMPORTERS OF BRAZILIAN DRUGS, AMERICAN AND CONTINENTAL SPECIALITIES.

ORIGINATORS AND MANUFACTURERS OF

OL. LAVAND. RECT.

Largely replacing the Mitcham Oil, 21/ lb.

LAC BISMUTHI TRADE MARK

OL. LIMONIS RECT.

Fine quality, keeps well. 6/ lb., Bottles Free.

Hydrobromic Syrup of Hypophosphites. **LAC BISMUTHI.** Lac Bismuthi et Ceril, &c.

GUSTAVE CLAUDON,

Works at DENAIN and WALLERS (Nord).
Offices, 18 Avenue Victoria, PARIS.

ALCOHOLS, ALDEHYDS, ŒTHERS, Etc.

Ethylalcohols Pure and Absolute. Propyl, Isopropyl, Butyl, Isobutyl, and Amyl-alcohols. Ethyl, Propyl, Isobutyl, and Amylaldehyds.

METALDEHYD CRYSTALLISED FOR MEDICAL PURPOSES.

Formiates, Acetates, and Butyrates of Methyl, Ethyl, Isobutyl and Amyl, &c.

Catalogues sent free on application. *Letters to be addressed to* 18 *Avenue Victoria, Paris.*

PRINTING & DOSING



OF

PILLS & GRANULES

BY

L. FRERE, 19 Rue Jacob, PARIS.

Received the only Gold Medal given to Pharmaceutical Products at the Paris Universal Exhibition, 1878.

Also awarded at the International Exhibitions of

Gold MELBOURNE, 1880; AMSTERDAM, 1883; SYDNEY, 1888; PARIS, 1889. **Medals**



The names and weights of the active substances are printed very clearly on each pill or granule. The object of an easily read inscription, such as this, is to obviate those errors which may so easily occur in handling ordinary granules. The seriousness of such mistakes is a direct consequence of the action of the substances employed. The inscription gives every security both to the invalid and the doctor. The process of manufacturing printed pills and granules makes it possible to obtain absolute homogeneous masses, in which the active principles are uniformly distributed and mathematically dosed. The covering is of a nature which preserves the most changeable medicaments, such as iodide of iron, in all climates. All our various pills and granules are further distinguished by the colour of their covering. The printing is done by means of lampblack, and the colouring matter employed for the coverings is entirely of a vegetable nature.

EXTRACT FROM PRICE LIST FRENCH PHARMACOPŒIA.

NAMES OF SUBSTANCES	Weights: French Milligram	Weights: English Grains	Prices: Bottles of 100, viz. 8½ doz.
			d.
Amorphous Aconitina ..	1/2	1/120	8
Crystallised Aconitina ..	1/10	1/600	8
Arseniate of Soda	1	1/60	6
Arseniate of Strychnia ..	1/2	1/120	8
Bi-chloride of Hydrargyrum	1	1/60	6
Bi-iodide of Hydrargyrum	1	1/60	6
Colchicina..	1/2	1/120	8
Acetate of Morphia ..	1	1/60	7
Hydrochlorate of Morphia	1	1/60	8
Phosphoric Acid	1	1/60	8
Phosphuret of Zinc.. ..	1	1/60	8
„ „	2	1/30	8
„ „	4	1/15	8
Picrotoxina	1	1/60	8
Crystallised Quassina ..	1	1/60	8
Extract of Strophanthus	1	1/60	10
Sulphate of Strychnia ..	1	1/60	8

NAMES OF SUBSTANCES	Weights: French Centigram	Weights: English Grains	Prices: Bottles of 50, viz. 4⅙ doz.
			s. d.
Acetate of Morphia ..	1	1/6	1 3
Salicylic Acid	10	1 2/3	0 7
Aloes	10	1 2/3	0 7
"Anderson's" or "Scotch Pills"	—	—	0 6
Benzoate of Lithina ..	1	1/6	0 8
Bromhydrate of Quinina	5	5/6	1 3
„ „	10	1 2/3	1 8
„ „	15	2 1/2	2 0
„ „	20	3 1/3	2 6
Bromide of Camphor ..	1	1/6	0 7
„ „ ..	5	5/6	0 8
Caffeina	1	1/6	1 3
Calomelas	1	1/6	0 7
„	5	5/6	0 7
Hydrochlorate of Quinina	5	5/6	1 3
„ „ „	10	1 2/3	1 8
„ „ „	15	2 1/2	2 0

NAMES OF SUBSTANCES	Weights: French Centigram	Weights: English Grains	Prices: Bottles of 50, viz. 4⅙ doz.
			s. d.
Codeina	1	1/6	1 8
„	2½	5/12	2 0
„	5	5/6	2 10
Ergotina	1	1/6	0 10
„	5	5/6	0 10
„	10	1 2/3	0 10
„	15	2 1/2	0 10
Extract of Belladonna ..	1	1/6	0 7
Amorphous Quassina ..	1	1/6	0 8
„ „ ..	2	1/3	0 10
Santonina	2	1/3	0 7
„	5	5/6	0 8
Sulphate of Quinina ..	5	5/6	1 3
„ „ ..	10	1 2/3	1 8
„ „	15	2 1/2	2 0
„ „	20	3 1/3	2 5
Sulphate of Sparteina ..	2½	5/12	0 10

The preceding list comprises only a very small portion of the Pills and Granules prepared by the Firm of L. Frère. Their complete Catalogue contains the various formulæ of the French Pharmacopœia, also the leading ones of the British Pharmacopœia, as follows:—

BRITISH PHARMACOPŒIA	Prices: Per Gross	Prices: Per lb.	Prices: Per Bottles of 50 pills
	s. d.	s. d.	d.
Aloes Barb. P. B. gr. IV.	1 0	10 0	4
Aloes and Ferri P. B.	1 2	10 4	5
Aloes and Myrrh. P. B.	1 7	12 0	6
Asafœtida Co. P. B.	1 4	10 4	5½
Calomel Co. P. B. or "Calomel Pill" ..	1 2	10 0	5
Colocynth Co. P. B. or "Colocynth Pill" ..	1 8	16 0	6½
Coloc. and Hyos. P. B.	1 7	13 0	6
Ferri Iodid. P. B. gr. III.	1 8	16 0	6½

BRITISH PHARMACOPŒIA	Prices: Per Gross	Prices: Per lb.	Prices: Per Bottles of 50 pills
	s. d.	s. d.	d.
Ferri Carb. P. B. or "Female Pill" ..	1 0	8 0	4
Blue Pill P. B.	1 0	10 0	4
Rhei Co. P. B. or "Compound Rhubarb"	1 4	12 0	5½
Aperiens or "Antibilious Pill" ..	1 0	10 0	4
Podophyllin gr. 1/4 6,000 per lb.	1 2	20 0	5
Acid. Arsenios gr. 1/60 „ „	1 0	10 0	4
Atropia gr. 1/60 „ „	1 4	32 0	5
Digitalin gr. 1/60 „ „	1 4	28 0	5

The above are the principal pills in daily use, and these P. B. are made in strict accordance with the formulæ of the British Pharmacopœia. In proportion with the demand, other kinds will be added to our list, at equally low prices.

NOTE.—Beyond the pills and granules mentioned in our price list, we manufacture to order any kind of pill or granule of which the formula may be confided to us, with whatever inscription the client may select. These special orders cannot be undertaken for a less quantity than two kilogrammes (4 lb. 7 oz.). It is also necessary to give (1) the colour selected for the covering, (2) the inscription written very distinctly. This lettering can not occupy more than 18 European letters. The spaces between the words count as a letter. For the Hindoo languages the number of letters may vary according to the form of type. The price for manufacturing is 18 francs (14s. 4d.) per kilogramme (2 lb. 3 oz.) of pills covered. Our customers can have the raw materials sent to us by a wholesale drug house, or we will undertake to supply them. It is hardly necessary to add that an absolute discretion is guaranteed. **The Granules** comprise the doses of active principle for $\frac{1}{10}$ milligramme, up to one centigramme exclusively. **The Pills** comprise all the other doses. Each bottle of Granules contains one hundred granules, viz.: 8 doz. ⅓. Each bottle of Pills contains fifty pills, viz.: 4 doz. ½.

A Complete Catalogue is forwarded Free on Application.

Coca Coca Coca Coca Coca



Tablets Lozenges Elixir Tea

SOLE PROPRIETORS—

THE FRENCH HYGIENIC SOCIETY OF LONDON, 6 CONDUIT STREET, REGENT STREET, LONDON, W.

whence will be forwarded to any applicant a Pamphlet containing the testimony of eminent British and Foreign Medical Authorities to the invaluable properties of the Coca Preparations.

RETAIL PRICES.

Coca Tablets and Lozenges in boxes, **1/-, 2/6, & 4/-** per Box.
Coca Elixir ... ... **3/-** „ Bottle.
Coca Tea in tins of 1 lb. **4/-**, ½ lb. **2/-**, ¼ lb. **1/-**.

USUAL WHOLESALE DISCOUNT. CAN BE OBTAINED FROM ALL WHOLESALE HOUSES.

STAMIN.

THIS Preparation consists of a superior Essence of Beef, reinforced by the Extract of Coca Leaf. No sick room should be without it. Taken in the form of a Jelly, it will be found to allay thirst, while its effectually sustaining and nourishing properties are beyond anything yet known.

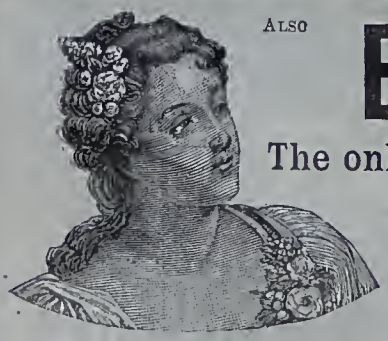
RETAIL PRICES, 1s, 3d. and 2s. 6d.

MENTHOLIN SNUFF.

THIS is a Perfect Remedy for Coriza or Cold in the Head. It is a powder taken as snuff, and is prepared from the OIL OF MINT principally, together with ingredients from other healing herbs. To all the disorders resulting from a cold, this snuff is an effectual antidote.

Retail, 1s. 1½d. per Box, by Post 1s. 3d.

CHEMISTS SHOULD SEND FOR TRIAL ORDER OF THESE GENUINE PREPARATIONS



ALSO

EAU LODOÏS.

The only real Hygienic Hair Producer which has never failed!

The Editor of *Health* says:

"The Eau Lodoïs is intended specially as a hair stimulant in cases of weakness and deficiency of growth. It contains no substance likely in the least degree to be injurious to the hair."

It is free from grease and stickiness, and does not affect the colour of the hair.

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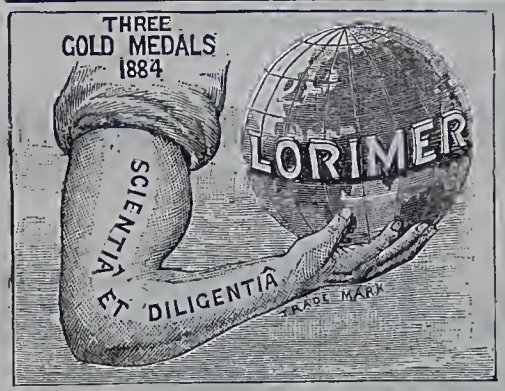
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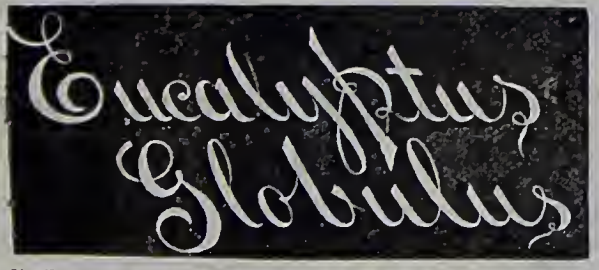
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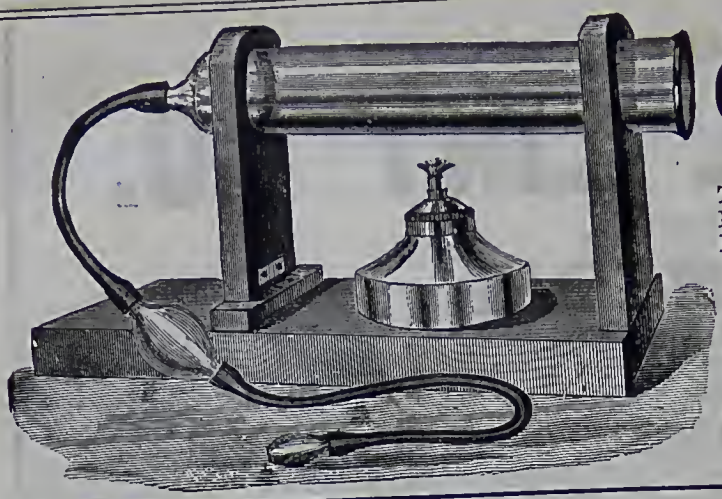


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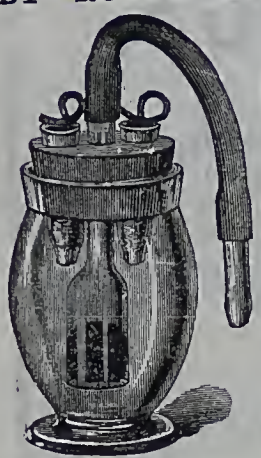
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Inflammation and Congestion of the Lungs, Pneumonia, Pleurisy, Whooping Cough, Croup, Diphtheria, Pharyngitis, Laryngitis, Catarrh, Sore Throat, Quinsy, Enlarged Tonsils, Hoarseness, Loss of Voice, Colds in the Head, Hay Fever, and all other Complaints of the Respiratory Organs.

PREPARED ONLY BY THE INVENTOR.

None Genuine except such as bears the above Trade Mark **"SPIRONE"** and the Signature of the Inventor upon the Bottle on the Label over the Cork, and on the Wrapper,

JOHN FRANCIS CHURCHILL, M.D. (Paris),

The Discoverer of the Specific Cure for Consumption, and of the Medicinal Properties of the Hypophosphites

Price 4s. 6d. and 11s. per Bottle.

SET OF APPARATUS FOR ADMINISTRATION, 15/. PAMPHLETS AND SHOWCARDS FREE ON APPLICATION.

THE SPIRONE COMPANY, Lim., Depot—17A Duke St., Manchester Square, LONDON, W.

VINCENT WOOD,

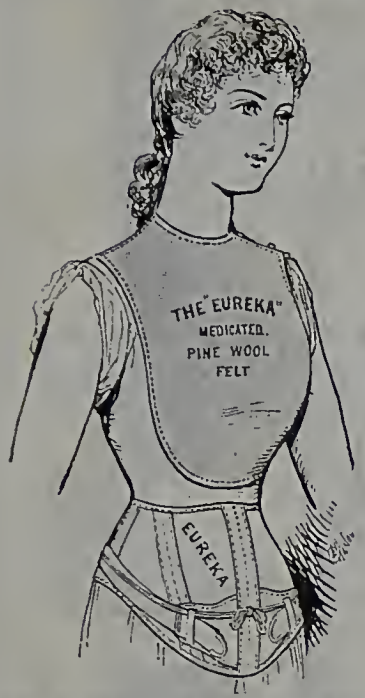
28a, 29, 30, 31 Paternoster Square; 10, 11, 12, 13 Rose Street, Newgate Street,

LONDON, E.C.

ESTABLISHED 1840. *Telegraphic Address—"ACME LONDON."*

Factories at Stratford, Nottingham, and Rose St.

DEPOTS AT PARIS, NEW YORK, AND BRUSSELS.



The "EUREKA" Medicated Pine Wool Felt Appliances.

The Inventor and Sole Manufacturer of the

"EUREKA" MEDICATED

PINE WOOL FELT APPLIANCES,

Consisting of CHEST and LUNG PROTECTORS, &c.,

Now having the Largest Sale of any such appliance in the World.

If you do not hold a Stock, order at once, it will pay you, but beware of frauds.

I also Manufacture

Trusses, Elastic Hosiery, Suspensory Bandages, Ladies' and Gentlemen's Belts, every kind of Surgical Appliances, Chest Expanding Braces, Obstetric Binders, &c., &c.

THE LARGEST MAKER IN THE WORLD.

My New Truss Works, fitted with all modern appliances, is now open.

SPECIAL ORDERS DELIVERED SAME DAY.

Chemists, or buyers generally, are invited to inspect my goods, they then can purchase them through their Wholesale Houses.

I also supply Models under Glass Show Cases, Show Cards, Circulars with Names and Addresses upon and printed in all modern langnages, Blocks of varions kinds, &c., free of charge to those buying my Goods.



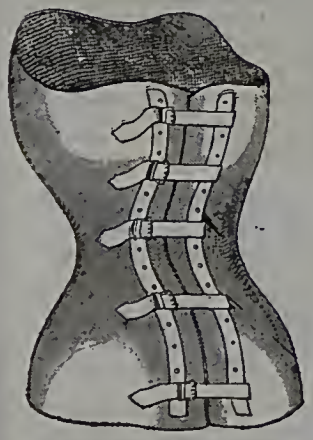
The ACME CUIRASS BRACE and Ladies' Eureka Belt.
Worn separately if required.

Mr. VINCENT WOOD personally attends daily at his office, 29 Paternoster Square, from 10 a.m. to 12.30, and from 3 p.m. to 6 p.m., Satnrdays at 1 p.m., giving customers the benefit of his great and varied experience in the selection of goods suitable for various climates.

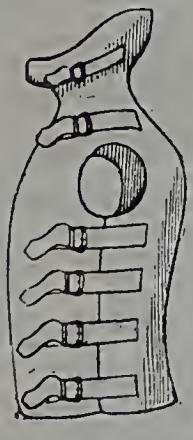
NO GOODS GENUINE UNLESS BEARING OUR TRADE MARK—"EUREKA."

COCKING'S PATENT PORO-PLASTIC JACKETS & SPLINTS.

JACKET.



CERVICAL JACKET, No. 1.



CERVICAL JACKET, No. 2.



CERVICAL JACKET, No. 3.



LEG SPLINT.
FOR ALL DISEASES OF THE KNEE OR FRACTURE.



INSTRUCTIONS FOR MEASUREMENT, &c.

JACKET.

(In cases of slight deformity):—

Circumference at axilla.
" waist.
" hips.
Length from axilla to great trochanter.

In severe angular cases circumference over apex of curve, position of same, and contour should be given; in lateral cases a description of the case.

In all cases it must be stated if for male or female.

CERVICAL JACKETS.

Same measurements and circumference at neck, and length from centre of neck to axilla.

Any part of the Jacket can, in the process of manufacture, be left soft.

LEG SPLINT.

Circumference at top of thigh.
" above knee.
" at knee.
" below knee.
" calf.
" ankle.
Length of splint as required.

State if for right or left leg.

When the foot part is required, also circumference at heel and instep, and length from centre of knee to ground.

If the limb is contracted, the contour should be given.

Made with soft front or with hinge at back, and with foot part if required.

These Splints can be fitted perfectly to the Patient if softened either by hot water or in a Heater made for the purpose. When mounted with webbing, hot water will do; if with leather, a Heater should be used. The material becomes quite hard again in two or three minutes.

PORO-PLASTIC IN SHEETS ALWAYS IN STOCK.

SOLE MANUFACTURER, J. T. COCKING, PLYMOUTH.

Wholesale Agents:—S. MAW, SON & THOMPSON, London, E.C.

SURGICAL ELASTIC STOCKINGS AND APPLIANCES.

Merchandise Marks Act, 1887. 50 and 51 Vict., ch. 28.

This Act is passed to enable the public to know when they have a genuine article offered to them.

J. H. HAYWOOD, Nottingham, manufactures appliances which he guarantees as being made from the best materials that can be purchased and of the best workmanship. His make of Surgical Stockings, &c., may be known by the letter H, woven in the top of the articles, and his Trusses, Belts, Suspenders, &c., by his monogram, as in margin, stamped on them, to imitate which renders the imitator liable to imprisonment with hard labour for a term up to two years, and the article to be forfeited. Particular attention is called to the following, most of which are Patented or Registered, and cannot be obtained from any other house.

PROTECTED. No. 14,618.



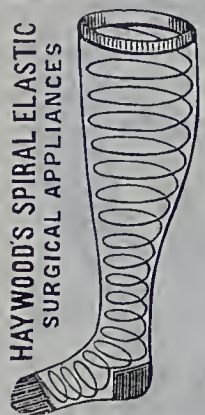
Showing the Pile lying over the Indiarubber Cords, protecting them and forming a smooth soft surface to the limb.





PATENT PILE SURGICAL STOCKINGS, &c.

This Invention consists in raising a Pile or Fleece of a Velvety character upon the inside of Surgical Appliances, as Stockings, Knee Caps, Belts, Elbow and Shoulder Pieces, &c., which, lying over the Cords of Indiarubber, effectually prevents them indenting the Limb, and produces an equal and more comfortable pressure upon the swollen veins, without affecting the elasticity. In Knee Caps and other Appliances for Rheumatism, Sciatica, &c., warmth, as well as Support, is obtained; the Pile or Fleece being made from Pure Natural, Scarlet, or Pine Wool. In Belts it is a great improvement, as, besides securing warmth, if required it forms a soft surface which clings to the body and prevents rucking up and getting out of place, and does away, in most cases, with the necessity for understraps.



SEAMLESS SPIRAL ELASTIC SURGICAL STOCKINGS.

Patent 4682, made from Patent Machinery, and are on an entirely different principle from those generally in use.

The advantages are :—1. The Indiarubber Thread being run into the Fabric in one CONTINUOUS PIECE, and no binding used, adapts itself to the shape of any leg, &c., and gives EQUAL PRESSURE throughout. 2. There are NO SEAMS to irritate the skin at the back of the leg, the HEEL, or the foot, and therefore no Binding to wear off. 3. The Indiarubber Thread being embedded in the Fabric, the surface is PERFECTLY SMOOTH on both sides, and does not mark the skin in ridges. 4. The Stockings have HEELS and TOES, if wished, so that the Appliance is kept firmly in its place. 5. They are perfectly porous, and allow the perspiration to evaporate. 6. They can be worn to take the place of ordinary Stockings, and being made from specially prepared Indiarubber CAN BE WASHED, if care is used not to have the water too hot. 7. They are made in different sizes to correspond with the old make, and in different materials, THREAD, CASHMERE WOOL, and SILK.

VENTILATING UNDERCLOTHING FOR LADIES AND GENTLEMEN. Protected, No. 12,096.

Chest Protectors, Vests, Knee Caps, Sleeping Socks, Blankets, Skirts, Bodices, Respirators, Gout Gloves, &c., made from Pure Natural Wools, Pine Wool, and Scarlet Wool, in its natural state, not woven, but enclosed in a Reticulated or Net-shaped Tissue, COMBINING WARMTH, PURITY, LIGHTNESS, and VENTILATION.

CHEST PROTECTORS, ANTI-RHEUMATIC KNEE-CAPS, SHIN GUARDS.

Seamless Elastic Stockings, &c., no seams to irritate the Heels and Feet. Ladies' and Gents' Belts. Trusses and Belts for Bathing. Athletic Supports for Wrists, Elbows, Knees, and Ankles. Magnetic Appliances, Chest-expanding Braces, Stocking Suspenders, Druggists' Sundries.

Trusses for Ruptures of all kinds, equal to any supplied in London, Paris, or New York. Ladies' and Gentlemen's Supporting Belts and Bandages Poro Plastic Jackets and Steel Instruments for Curvature of the Spine moulded to the Patient as in London. Splints and Instruments for Deformed Feet and Legs. Chest Expanding Braces for Stooping Shoulders and Contracted Chests. Patent Elastic Surgical Stockings, without Seams, for Varicose Veins, Sprains, &c. Indiarubber Appliances, Invalid Furniture, Bath Chairs, Carriages, Crutches, Ear Trumpets, Throat, Ear, and Nose Instruments, &c. Artificial Arms, Legs, &c. Strong cheap articles for working men.

EXCELSIOR TRUSS. Registered 20,384.

This TRUSS is an improved form of Moe Main. It has a Spring inside the Pad, and from its peculiar form it fits firmly on the Rupture. The Band is shaped wide and fits firmly and comfortably into the back, and will not slip down.

MAGNETIC APPLIANCES FOR RHEUMATISM, SCIATICA, WEAKNESS, LUMBAGO, &c.

APPLIANCES TO FIT ANY PART OF THE BODY.

SPECIALITIES—Elastic Stockings, Ladies' Belts, Men's Belts, Bathing Caps, Sponge Bags, Suspensory Bandages, Chest-expanding Braces, Chest Protectors, Medical Glass, Waterproof Sheeting, Bandages, Air Cushions, Orutolics, Enema Apparatus, Instruments, Indiarubber, Magnetic Belts and Appliances, Dress Preservers, Trusses, Nursing Aprons, Spinal Supports, Leg Irons, Infants' Belts, Bathing Gloves, Elastic Webs, Urinals, Druggists' Sundries.

Departmental Lists are printed of Bandages, Belts, Braces, Magnetic Appliances, Surgical Elastic Stockings, &c., Suspensory Bandages, Trusses, Chamois Leather Articles as Hosiery, &c., Surgical Indiarubber Sundries, Druggists' Sundries, Invalids' Winter Appliances, all or any of which will be forwarded on application, free by post.

J. H. HAYWOOD, SURGICAL APPLIANCE MANUFACTURER, **CASTLE GATE, NOTTINGHAM.**

SPECIALITIES IN SURGICAL TISSUES.

Absorbent
Cotton Lints,
Flax Lints,
Roll Bandages,
Cotton Wools.



TRADE MARK
(REGISTERED).

"Gamgee Tissue"
(Patent Absorbent Gauze and
Cotton Wool)
AND
all kinds of
Antiseptic Dressings.

MANUFACTURED BY

ROBINSON & SONS,

Cotton Spinners, Weavers, and Bleachers,

WHEAT BRIDGE MILLS, CHESTERFIELD.

And 55 Fann Street, Aldersgate Street, LONDON, E.C.

LINTS.

These we make by our improved machinery. Perfectly pure, strongly absorbent, beautifully soft, tears well, and very cheap. Their use in the largest Hospitals of London, Edinburgh, &c., is a sufficient guarantee of their quality. Our Flax Lint is the only ABSORBENT Flax Lint made, that we know of.

BANDAGES.

Surgeons who have not seen our White Absorbent Roll Bandages should write us for a sample. As well as being all that is required for splints, &c., being instantaneously absorbent, LOTIONS can be applied direct through the Bandage, and they are also the very best Bandage for use with starch or plaster-of-Paris, &c. *We were the first to introduce to the Profession the now highly-valued White Open-wove Absorbent Bandages.*

ABSORBENT COTTON WOOLS.

We were the Sole Manufacturers of Absorbent Cotton Wool for the late Sampson Gamgee, Esq., F.R.S.E., who introduced it into British practice, and have had a large and increasing demand for this article up to present date. We make a first-class article for Surgeons' private practice, and a pure cheap Absorbent Cotton for Hospital use. We are also Carders of both Grey and the ordinary grades of Non-Absorbent White Cottons.

"GAMGEE TISSUE."

☞ PLEASE READ THIS—

This *patented* article, recently introduced, and of which we are the sole proprietors and manufacturers, is deservedly increasing in favour with the profession. We quote the following extract from a Clinical Address delivered by SAMPSON GAMGEE, Esq., F.R.S.E., Consulting Surgeon to the Queen's Hospital, Birmingham:—

"On purely surgical grounds, I have no hesitation in stating that the absorbent gauze and cotton tissue prepared at my suggestion by Messrs. Robinson & Sons, of Chesterfield, is the most generally useful and comfortable, the most easily manageable, and most economical surgical dressing with which I am acquainted.

"The tissue, as made in long lengths, is perfectly uniform in surface and thickness, and can be cut to any shape or size to pad the trunk or the limbs, in case of disease or injury. Powerfully absorbent and elastic, the tissue is equally serviceable for drainage and compression, for dressing blisters and burns, wounds and ulcers, sprains and fractures. The tissue does not stick in wounds, and can be applied and taken off with facility and without pain. It does not lump together but remains uniform, and is a most soothing and healing application to inflamed joints, and many skin affections.

"The tissue is susceptible of any antiseptic medication, and it also takes up plaster-of-Paris, cream, liquid glass, collodion or paraffin so readily as to make an excellent basis for splintage and moulds. A limb or the trunk may be very speedily and effectually immobilized by surrounding it with a layer of the dry tissue, and outside that placing a layer, or intersecting slips, of the same material previously soaked in plaster-of-Paris, cream, or other solidifiable substance"—which is best kept into its desired position by Robinson & Sons' Absorbent Bandages.

N.B.—Certificate of Merit to Robinson & Sons for Bandages, Cotton Wools, and Lints. Exhibited at the International Medical and Sanitary Exhibition, London, 1881.

We place the highest value on this AWARD, as most of the Judges of Surgical Appliances at the late Exhibition have used our Lint, &c., for many years at the London Hospitals. No higher recognition of Quality can be given.

ROBINSON & SONS.

OUR GOODS CAN BE HAD FROM THE WHOLESALE HOUSES OR DIRECT FROM THE MILLS.

ROTARY PILL MACHINES



Fig. A.

Fig. A.—This invention consists in a novel and improved arrangement of Machinery, whereby any description of Pill Mass can be converted into Pills, at the rate of from 15 lbs. to 40 lbs. per hour, according to the size of the Machine used.

Fig. A.—No. 1 .. £12 12s
No. 2 .. £15 15s.
No. 3 .. £20 0s.

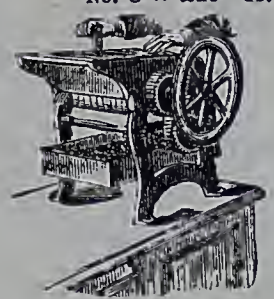


Fig. B.

Fig. B.—A small useful Machine capable of making 10 lbs. of Pills per hour, particularly adapted for persons making small quantities, at **£7 15s.**
Press suitable for same, **£2 15s.**

Any of the above can be made to cut two or three different size Pills, at an additional cost for extra Rollers and Plates.

PIPING PRESSES

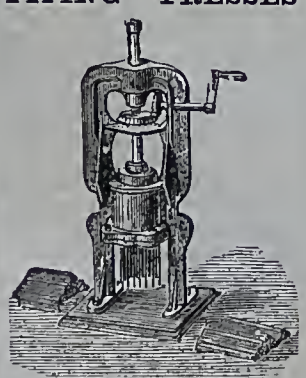


Fig. C.

Fig. C. is the Improved Press for Piping, by means of which a great quantity of Mass can be Piped in a few minutes, truer than by the old method of rolling.

No. 1 .. .. .. £ 7 0s.
Fig. C.—No. 2 .. £5 10s.
No. 3 .. £8 0s.

J. W. PINDAR'S NEW ROTARY PILL MACHINES

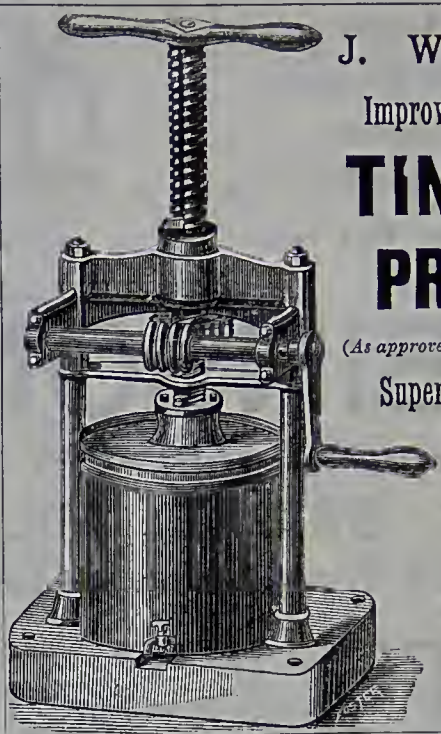
As used to this date by Messrs. Holloway, Cockle, Cox, and all the principal Pill Makers in Europe, Asia, Africa, America, and Australia.

J. W. PINDAR'S New Rotary HORSE BALLS MACHINES.

These Machines are on a similar principle to the Rotary Pill Machines that have given such great satisfaction in all parts of the world.

Price **£8 15s.**

Rollers for other sizes, Riggers for Steam Power, also Gas Apparatus if required, supplied at a small additional cost.



J. W. PINDAR'S Improved Double-Action TINCTURE PRESSES

(As approved of by Wholesale Chemists.)

Superior to Hydraulic,

On account of holding the pressure.

Prices for One Gallon **£3 10s.**

For each additional Gallon, **£1 10s.** extra

Directions for use forwarded with each article.

Mr. J. W. PINDAR, 224 Strand, 13th March, 1866.
Sir,—I have much pleasure in stating that the Pill Machine which you made for me answers remarkably well, as the Pills are far better made than those by hand-machines, and with much less waste. I can, therefore, confidently recommend it as a very excellent one, a great saving of labour and, consequently, expense.—I remain, yours faithfully,
THOMAS HOLLOWAY.

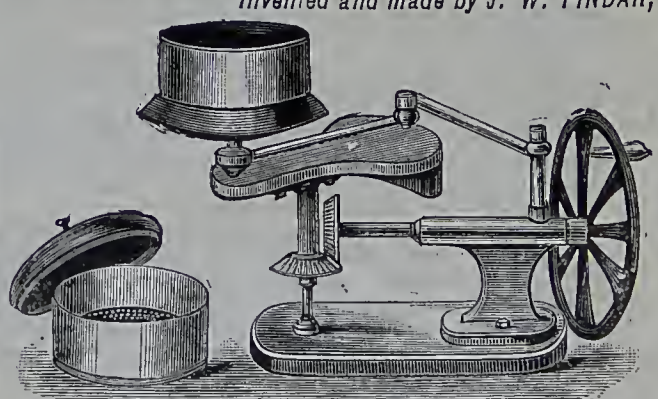
3 Crane Court, Fleet Stroet, Feb. 14th, 1871.
To Mr. J. W. PINDAR.
Dear Sir,—We have now used your Rotary Pill Machine about six years, and find it answers better than any we had previously used, and makes the Pills of a very regular size.—Yours truly,
T. WHELPTON.

338 Oxford St., opposite Great Portland St.,
Mr. J. W. PINDAR, Feb. 11th, 1871.
Sir,—The Rotary Pill Machine and Press which we had from you (for a special order) answered very satisfactorily.—We are, Sir, yours respectfully,
JOHN BELL & CO.

29 Murray St., New York, and Farringdon Rd.,
Mr. J. W. PINDAR, London, Nov. 9th. 1880.
Dear Sir,—Your letter of inquiry came duly to hand. As I always told you, the Pill Machine in operation at my London warehouse has given entire satisfaction So have those we are using in this country. We can make smooth, round Pills of uniform size at a very small expense. I can safely say that your Pill Machine is all that you claim it to be—a perfect Machine.
Yours truly, A. J. WHITE.

NEW PATENT "ECCENTRIC" PILL COATER.

Invented and made by J. W. PINDAR, Patentee.



By an entirely new arrangement of mechanism this machine is constructed in a manner which supersedes all others, as, owing to its "Eccentric" motion, the Pills.—which may be coated with Pearl, Silver, Gold, or Sugar, &c., &c.—are thoroughly separated from each other during the process, and retain their original spherical form, whilst being thrown round the receptacle with remarkable velocity.

These machines are equally adapted for coating large or small quantities; thus, a machine constructed for and suitable for coating 20 lbs. will coat 1 lb. only with equal efficacy, and in the most satisfactory manner.

Each machine is supplied with a Drug or Powder Sifter, to be attached if required, and which, fitting to top of Pill Receptacle, is subject to the same "Eccentric" motion as above mentioned.

This addition will be found of great advantage in the Laboratory, being both efficient and compact.

PRICES.

No. 1.—For 2 lbs., £3 5s.; sifter for same, 7s. 6d.
No. 2.—For 5 lbs., £4 15s.; sifter for same, 15s.
No. 3.—For 10 lbs., £6 15s.; sifter for same, £1 5s.
No. 4.—For 20 lbs., on Iron Standards for Steam, Gas, or other power, £15 15s.; sifter for same, £2 5s.

The smallest Machines can be worked by Steam Power at a small additional cost.

Testimonials from all parts of the World may be seen on application to

J. W. PINDAR, 75 New Church Rd., Camberwell, LONDON.

F. SCHUTZE & CO.'S
IMPROVED MEDICAL SPRAYS



[No. 2023A.]

SCHUTZE'S IMPROVED,

With Rotating Tube, spraying straight and to all sides.

Complete, Price 8/6 each, subject.

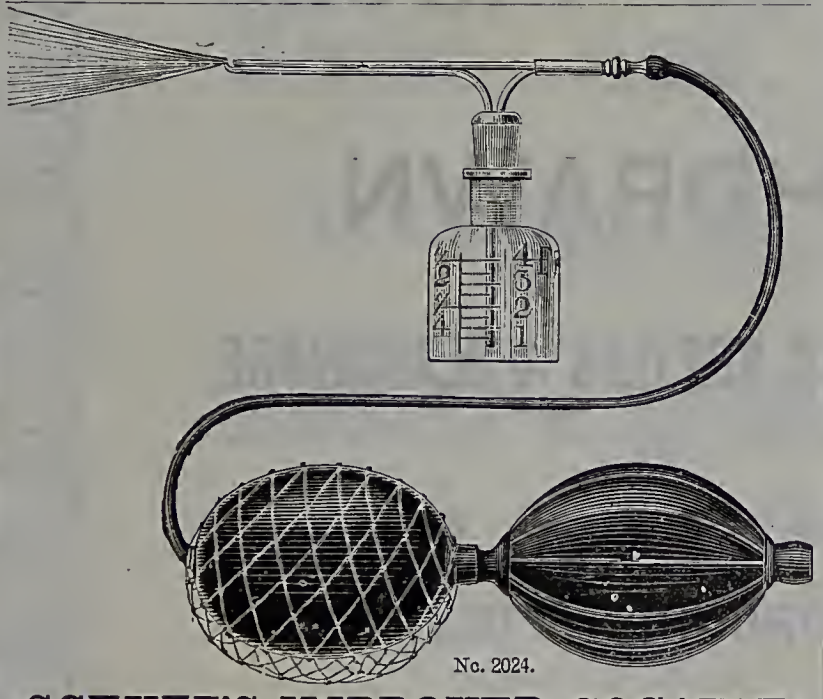
No. 2023B.

Schutze's Improved

With Rotating Tube, three Jets spraying straight, to all sides and back, specially constructed for Uterine operations.

Price 14/6 each, subject.





No. 2024.

SCHUTZ'S IMPROVED COCAINE.

4/- each subject.

No. 2022.

RICHARDSON'S ETHER SPRAY.

COMPLETE,

8/6 each,

SUBJECT.



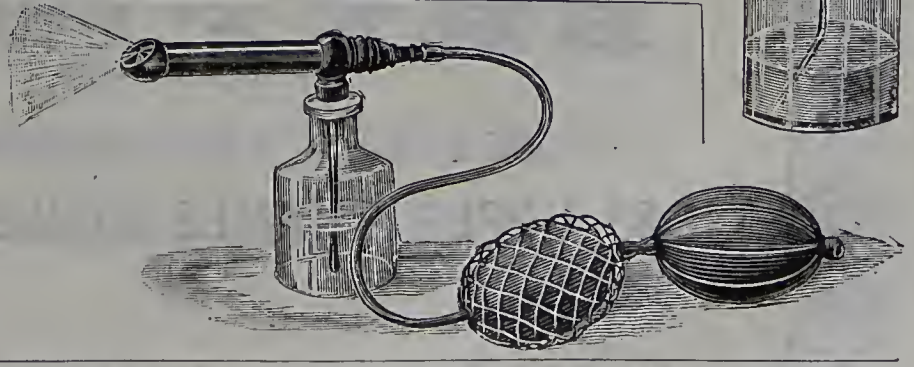
No. 2007.

DEWAR'S SPRAY.

With Vulcanite Mount - 4/- each.

With Plated Mount - - 5/6 ,,

SUBJECT.



For Prices of Cheap Throat Sprays, and Terms for above, apply for our New Illustrated Price List.

LIBERAL DISCOUNT TO WHOLESALE BUYERS AND SHIPPERS.

SHAFTESBURY HALL, 36A ALDERSGATE STREET, E.C.

NOTICE.

ALL PRIOR

LISTS OF PRICES

ARE NOW

WITHDRAWN.

PRESENT PRICES, BOTTLES & GLASSWARE,

APPEAR

PAGES 336 to 346

CHEMISTS' & DRUGGISTS' DIARY, 1890.

BREFFITS'

(LIMITED),

BOTTLES AND GLASSWARE,

83 UPPER THAMES STREET, LONDON.

BOTTLE AND GLASSWARE

BUYERS,

Home and Export,

Are respectfully asked to note our various quotations,

CHEMISTS' & DRUGGISTS' DIARY, 1890,

PAGES 336 TO 346.

BREFFITS'

(LIMITED),

Chemists' & Druggists' Bottles & Glassware,

83 UPPER THAMES STREET, LONDON.

MANUFACTORY.
"Eclipse" Glass Works,
Lea Bridge, Clapton, London, E.

Prize Medal, Adelaide Exhibition, 1887.
Award of Merit, Melbourne ,, 1888.

OFFICES AND WAREHOUSES,
381-3 KINGSLAND ROAD,
LONDON, E.

E. A. HEARN & CO.

WHOLESALE AND EXPORT GLASS BOTTLE MANUFACTURERS.



Makers of EVERY DESORIPTION of Glass Bottles, either PLAIN or STOPPERED, in
WHITE FLINT, AMBER, BLUE, MEDICAL GREEN, ACTINIC GREEN, &c., &c.
OR ANY COLOUR MADE TO ORDER.

FEEDING BOTTLES IN ALL SHAPES,
PLAIN NECKS OR SCREW STOPPERED.
SPECIALITY.—First-class Quality at Reasonable Prices.





GLASS BOTTLES OF THE BEST QUALITY.
DISPENSING, PICKLE, SAUCE, OIL, MINERAL WATERS, &c., &c.
SAMPLES AND PRICES ON APPLICATION.
E. YOULDON,
EAST LONDON GLASS BOTTLE WAREHOUSE
36 to 40 Great Garden Street, Whitechapel,
LONDON,
E.



SMELLING BOTTLES

For quotations of all descriptions see Druggists' Sundries List of undersigned.
See Advertisement, page 25.

EVANS, SONS & CO.
LIVERPOOL.

LONDON:
EVANS, LESCHER & WEBB,
60 Bartholomew Close.

CANADA:
EVANS AND SONS, LD.
Montreal, Toronto: and Victoria, British Columbia.

DISPENSING BOTTLES & PHIALS

BEFORE ORDERING

Of any other House, please write for prices of any size required to either of our Warehouses—

25 Francis St., Tottenham Court Road
61 Halton Road, Islington
153 Upper Thames Street, City
} LONDON.

ESTABLISHED UPWARDS OF 50 YEARS.

I. ISAACS & CO.
GLASS BOTTLE MANUFACTURERS.
BANKERS: LONDON AND WESTMINSTER BANK.

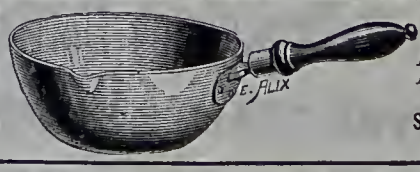


CIE de FABRICATION FRANÇAISE du NICKEL, 64 Rue de Turenne, PARIS
(FRENCH NICKEL MANUFACTURING CO.).



Speciality: Laboratory, Chemistry, and Surgical Articles in Pure Nickel Guaranteed.

Anodes, rolled and cast, in Pure Nickel, guaranteed.
Sulphates of Nickel, simple and double.
Apparatus for Chemical Manufacturers constructed according to design.



Household, Culinary, Table, and Toilet Articles in Pure Nickel, solid or plated.

For further particulars see Special Price List, which will be forwarded free on application when business card is enclosed.

S. A. EDWARDS & CO., BIRMINGHAM,
Agents for England.



WEDGWOOD ACID-PROOF
MORTARS AND PESTLES.

ALSO MANUFACTURERS OF
Funnels, Evaporating Pans, Electric Battery Fittings, Bed Pans, Urinals, Medicine Spoons, Physic Cups, Sick Feeders, Bleeding Basins, Medicine Measures, Eye Cups, Inhalers, Nursery Lamps, Wall Tiles, &c.
PRICE LIST ON APPLICATION. SPECIAL QUOTATIONS FOR LARGE ORDERS.
Any Article not bearing the Stamped Trade Mark "WEDGWOOD" is not made by us.

JOSIAH WEDGWOOD & SONS, ETRURIA, STOKE-ON-TRENT.
London Rooms: ST. ANDREW'S BUILDINGS, HOLBORN CIRCUS.

BOTTLES

The undersigned have not advanced their prices.

WRITE FOR QUOTATIONS

AND

SEE PRICE LISTS.

We call attention to our

SPECIAL SQUARES.

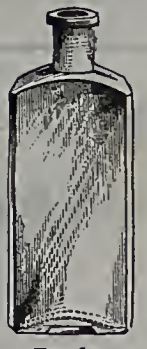


FIG. 1*a*.

BOTTLES—GLASS, DISPENSING.

4*a*. SPECIAL SQUARES, Tinted (Fig. 1*a*)—

2	3	4	6	8	10	12	16	20	ounce.
7/6	8/-	8/-	8/6	9/-	12/6	13/-	18/-	21/6	gross.

4*b*. SPECIAL SQUARES, White (Fig. 1*a*)—

2	3	4	6	8	10	12	16	20	ounce.
8/3	8/6	9/6	10/9	13/-	16/-	18/-	20/-	25/-	gross.

The above quotations are for original crates, containing about—

2	3	4	6	8	10	12	16	20	ounce.
16	12	10	8	7	5½	4	3	2½	gross.

We also supply in 1-gross Crates at an advance of 1/- per gross, which is smallest quantity supplied.

EVANS, SONS & CO., LIVERPOOL.

LONDON:

EVANS, LESCHER & WEBB.

WILLIAM TOOGOOD'S

WAREHOUSE AND SHOW ROOM,

BURLINGTON BUILDINGS,

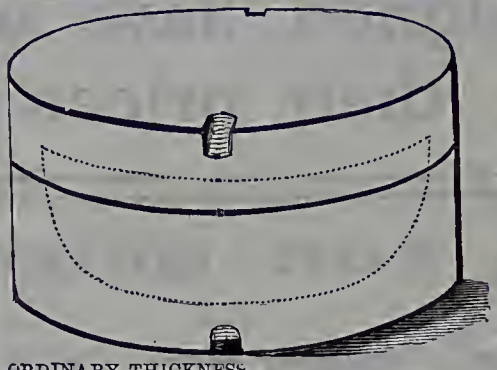
HEDDON STREET, REGENT STREET, LONDON, W.

TOOGOOD'S

IMPROVED PATENT

EARTHENWARE COVERED POTS

Are claimed to be the most perfect and convenient yet offered to the Trade.



Owing to the increasing demand for our Patent Pots, we have introduced a Special THIN Series for Dispensing.

These Pots are beautifully glazed and finished, and, being very light, are specially adapted for sending by post.

ORDINARY THICKNESS—

1 dr.	2 dr.	½	¾	1	1½	2	3	4	6	8 ounces.
1/6	1/6	1/6	1/7	1/8	1/10	2/2	2/10	3/4	4/6	5/6 per doz.

THIN FOR DISPENSING—

¼	½	1	1½	2	3	4	6	8 ounces.
1/7	1/8	1/10	2/-	2/4	3/	3/8	5/-	6/- per doz.

Forwarded Free to all parts of the World on application, enclosing business card.

WILLIAM TOOGOOD'S

NEW ILLUSTRATED

PRICE CURRENT

OF

Glass Bottles, Glassware, Earthenware, Apparatus, Implements, and Utensils,

FOR THE USE OF CHEMISTS AND DRUGGISTS.

DRUGGISTS' SUNDRIES OF ALL KINDS.

Colonial and Foreign Enquiries and Correspondence solicited.


PHILADELPHIA, 1876.

PRIZE MEDALS. INTERNATIONAL EXHIBITIONS.


MELBOURNE, 1880.


SYDNEY, 1879.

KILNER BROTHERS

GLASS BOTTLE MANUFACTURERS.

No. 3A GREAT NORTHERN GOODS STATION, KING'S CROSS, LONDON.


PARIS, 1878.

Telegraphic Address:
"BOTTLES LONDON."


LONDON, 1862.

Telephone
No. 7509.


PARIS, 1875.

EXCELLENT QUALITY.

EXTENSIVE VARIETY.

PRICES LOW,



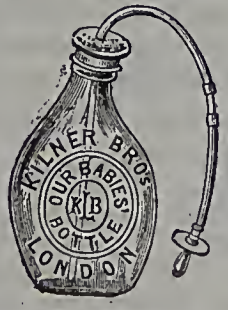
Dispensing.


FIRST ORDER OF MERIT,
MELBOURNE, 1888.



Dispensing.

QUOTATIONS AND SAMPLES SENT ON APPLICATION,



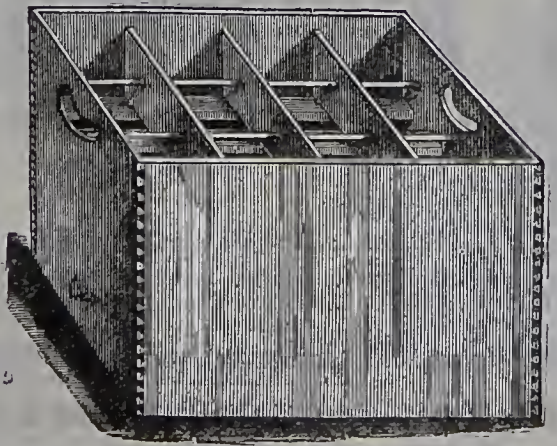
Feeding.

FEEDING, PICKLE, DRUG, OIL, SAUCE, VINEGAR **BOTTLES.**

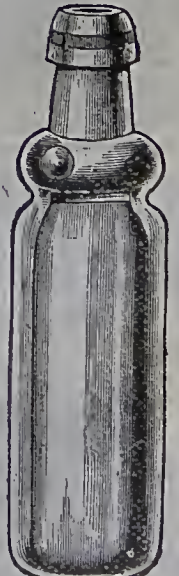
WINE, SPIRIT, BEER, CONFECTIONERY **BOTTLES.**


Mineral Water BOTTLES.

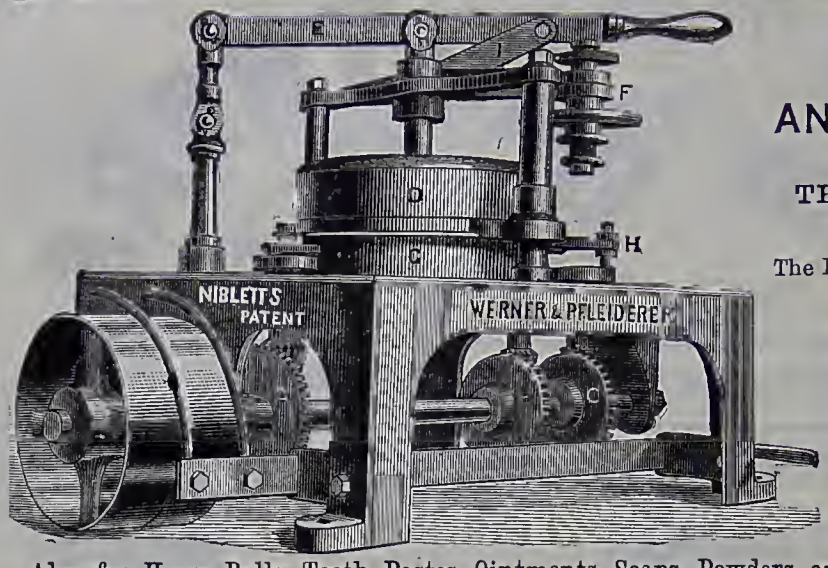
VAN BOXES.



CASES.


Mineral Water BOTTLES.

WERNER & PFLEIDERER'S
PILL-MAKING MACHINERY.



PILL ROUNDING AND FINISHING MACHINE

(NIBLETT'S PATENT).

THE ONLY PERFECT MACHINE FOR THIS OPERATION.

The Pill Plate takes ¼ lb. of Pills at once, and these are rounded in less than one minute. Can be worked either by hand or power. Used most satisfactorily by some of the best firms in the trade.

WRITE FOR PRICE AND PARTICULARS.

The "UNIVERSAL" KNEADING & MIXING MACHINE

FOR PILL MASS MAKING.

Also for Horse Balls, Tooth Pastes, Ointments, Soaps, Powders, and for General Mixing and Incorporating.

PIPING PRESSES, PILL CUTTERS, PILL COATERS.

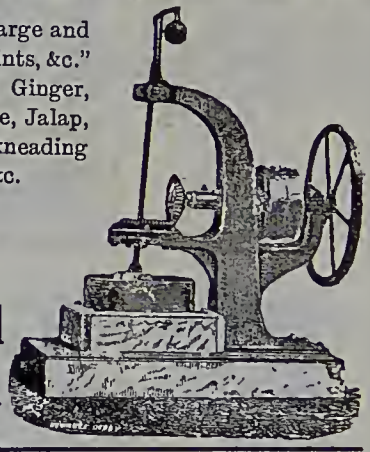
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GOODALL'S PATENT GRINDING & LEVIGATING MACHINES.



"These machines have for many years proved most serviceable on a large and small scale for Grinding, Levigating, and Mixing Powders, Pill Masses, Paints, &c." Amongst the articles which are readily ground by it may be mentioned Ginger, Seeds, Salts of all kinds, Cream of Tartar, Sugar, Cocoa, Pepper, Spice, Jalap, Rhubarb, Gums, Aloes, Barks, &c.; and for mixing or kneading Lozenges, Pill Masses, Glaziers' Putty, Bread, Biscuits, &c.



ILLUSTRATED PRICE LIST, with full particulars, sent free.

Prices from £8 10s. to £60.

E. F. GOODALL, Barton-under-Needwood

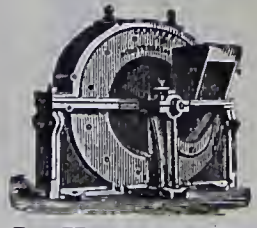
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Agent—Z. CARTWRIGHT.

CARTER'S DISINTEGRATORS

Will Pulverise, Granulate, or Shred almost any Mineral, Vegetable, or Animal Substance.



NEARLY 1,300 IN USE

IN ALL PARTS OF THE WORLD.

For Grinding Sugar, Bark, Linseed, Ginger, Pepper, Spices, Salt, &c., this Machine is invaluable. Made in 9 Sizes. Illustrated Catalogue may be obtained on application.

Samples of ANY Material will be Ground free of charge.

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Telegraphic Address—Milling London.

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ARE BONA-FIDE MANUFACTURERS OF

LIFTS

AND

HOISTS.

WORKING BY

Gas-Engine, Steam-Engine, Hydraulic, or Hand Power.

FOR

Passengers, Goods, Luggage, Dinners, &c.

Thorough Efficiency Guaranteed.

CONTRACTORS TO H.M. WAR OFFICE AND COLONIAL GOVERNMENTS.

Canal Head Foundry and Engineering Works,

ULVERSTON.

London Office.—3 GRACECHURCH ST., E.C.

PONTIFEX & WOOD

LIMITED,

Farringdon Works,

LONDON, E.C.



FIG. 1.

THE

"FARRINGDON"

PATENT PUMP,

FOR

PUMPING OILS, WINES,

AND OTHER

LIQUIDS from CASKS, &c.

The "Farringdon" Patent Pump, with improved Taper Barrel attachment. It is easy to work and simple in construction, and is admitted to be the best article in the market for pumping Paraffin Oil and all kinds of Liquid from barrels or tanks into other receptacles.

JOHN HOLROYD & CO., LIM.

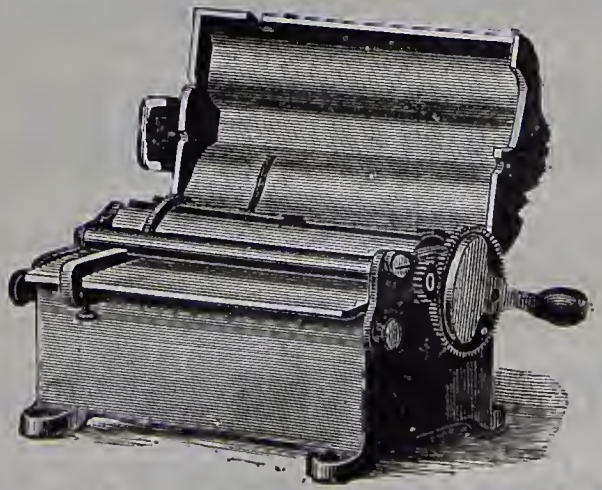
Engineers, Tool Makers, and Machinists,

TOMLINSON ST. WORKS, HULME, MANCHESTER.

MACHINES FOR MAKING COMPRESSED TABLETS.

MACHINES FOR GUMMING

Either an entire surface or the edge only of Labels, Wrappers, &c.



Machines Built to Contract for Inventors and Merchants.

R. H. BARRETT'S NEW PATENT BOTTLE.

THE ONLY REALLY PERFECT CAPPED BOTTLE FOR VASELINE, POMADE, DRY POWDERS, &c.

PRICES (in 5-gross Lots):—Fitted with STRONG METAL CAPS, CORK-LINED, in various colours, very attractive in appearance—1 oz., 12/; 1½ oz., 13/; 2 oz, 13/6; 3 oz., 16/; 4 oz., 18/ per gross.

Fitted with best BOXWOOD CAPS—1 oz., 15/6; 1½ oz., 16/6; 2 oz., 17/6; 3 oz., 21/6; 4 oz., 24/6 per gross.

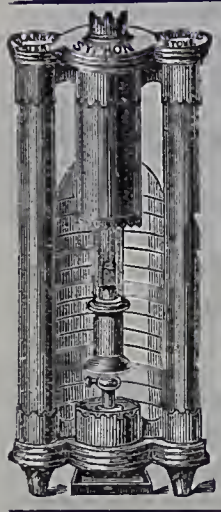
Chemists' and Perfumers' Bottles in great variety, Plain or Stoppered. Orders may be sent to the PRINCIPAL WHOLESALE HOUSES.

R. H. BARRETT,

FLINT GLASS BOTTLE WORKS,

THE OVAL, CAMBRIDGE HEATH, LONDON, E.

Telegraphic Address—"FOREFRONT LONDON." [2]



TO CHEMISTS AND DRUGGISTS.

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"SYPHON"

(REGISTERED TITLE)

HYGIENIC CONDENSING GAS HEATING STOVES.

NO FLUE REQUIRED. ARE FREE FROM SMELL OR SMOKE.

All injurious vapours are reduced to harmless liquid inside the Stove, and passed out at foot into a tray provided for that purpose.

FOR USE IN HOSPITALS, SICK CHAMBERS, BEDROOMS, HALLS, CONSERVATORIES, CHURCHES, SCHOOLS, ETC.

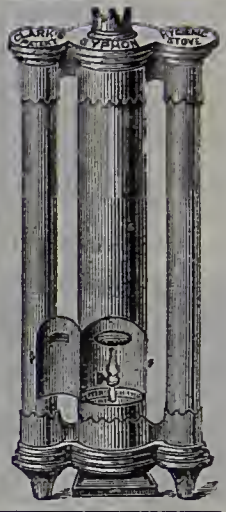
Specially suitable for patients suffering from Bronchial affections, as a moist atmosphere is obtainable when required.

FOR TERMS, PARTICULARS, AND PRICES, APPLY TO

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NEW CAPSULING MACHINE

The only Machine which leaves no crease or pleat on the Capsule.



Can be fixed to any Counter.
A single pull of the lever is sufficient to fix the Capsule.

Patentee—C. MELIN, 37 Crutched Friars, LONDON, E.C.

WILLOW BOXES.

For quotations of all descriptions see Druggists' Sundries List of undersigned.

See Advertisement, page 25.

EVANS, SONS & CO.

LIVERPOOL.

LONDON:
EVANS, LESCHER & WEBB,
60 Bartholomew Close.

CANADA:
EVANS AND SONS, LD.
Montreal, Toronto; and Victoria, British Columbia.

STOKES' PATENT

CHECK TILLSYSTEM

HAS

SIX ADVANTAGES

UNKNOWN IN ANY OTHER TILL SYSTEM.

Price only £3 Complete.

FULL PARTICULARS ON APPLICATION TO

G. R. STOKES & CO., LIM.

HANLEY, STAFFS.

REGISTERED

TRADE MARK

PETERMAN'S

COCKROACH & BEETLE FOOD.

Chemists can with confidence recommend it to customers.

Certified by Arthur Hassall, M.D., Not a Poison, but sure Death to Cockroaches and Beetles; the Food attracts them, they eat it, and are dried up to a shell.

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Price 1s., 2s., 4s. per Tin (Retail), sold by Wholesale Druggists.

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A Boon to Honsekeepers!

Price 6d. per Bottle. For Sale by Pint, Quart, or Gallon.

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"WORTH ITS WEIGHT IN GOLD!

BRAGGI'S

OINTMENT AND PLAISTERS.

A CERTAIN and SPEEDY CURE for

SPRAINS, BRUISES, BURNS, WOUNDS, BOILS, SCIATICA, ECZEMA, PILES,

And "the thousand ills which flesh is heir to."

HUNDREDS OF TESTIMONIALS FROM WELL-KNOWN PERSONS!

Ask your Chemist for the OINTMENT or PLASTER, and

DON'T BE PUT OFF WITH ANY OTHER.

Sold everywhere, 1/1½. Post free for 15 Stamps.

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ESTABLISHED 1833.

HORSES.—LIEUT. JAMES'S BLISTER.



CAUTION.

The annexed Label is at the top of every Pot of the *ORIGINAL* and only *GENUINE BLISTER.*

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And by all Chemists, in Pots, 1/6, 2/9, 5/, 9/, *and* 16/.

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Advertised in "Bell's Life" 54 years. Beware of Spurious Imitations.

TO HER MAJESTY THE QUEEN.

Used on the Royal Farms at Windsor, Osborne, and Sandringham, and by the principal Stockbreeders everywhere for nearly 60 *years.*

TO H.R.H. THE PRINCE OF WALES.

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HORSE, CATTLE, AND SHEEP MEDICINES.

THE CHEMICAL EXTRACT.

For assuaging pain and inflammation in all wounds, saddle galls, strains, bruises, swellings and relaxed tendons in Horses. For paining after calving and lambing, and for swollen udders and sore feet.

2s. 6d. per Bottle; ½-dozen Box, 7s. 6d.

THE RED DRENCH.

Celebrated for inflammatory disorders, such as fevers, pleurisy, foot-and-mouth complaints, yellows, surfeit, and red-water. Also for difficult calving and lambing. Admirably adapted for cleansing and checking feverish symptoms in Cows and Ewes after a bad time of parturition.

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THE GASEOUS FLUID.

Unmatched for colic or gripes and debility in Horses, for colds, chills, shivering fits, flux and diarrhœa in Cattle, Calves, and Sheep. For Ewes weakly after lambing and blown Cattle and Sheep, its effects are marvellous.

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Used as landanum in uncontrollable spasmodic pains and violent bowel complaints. Invaluable for parturition in Mares, Cows, and Ewes.

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THE RED PASTE BALLS and RED POWDERS.

For ill-conditioned Horses and Colts; invalnable after hard hunting or driving. For coughs, colds, staring coat, itching, swollen legs and want of strength. The powder given in the feed will produce fine appetite and tone.

7s. 6d. per dozen; 3-dozen Box, 21s.

THE BLACK PHYSIC BALLS.

These Balls are matchless for thoroughly cleansing the system of all impurities, and for assisting in the expulsion of Worms. Their purgative action soon relieves Costiveness of the Bowels, and checks all Feverish Symptoms arising from gross habit.

Price, 8s. per dozen; Box containing 3 dozen, 23s.

THE BRONCHOLINE.

The great and reliable remedy for Husk or Hoose in Cattle, Heifers Calves, and Sheep. Its gaseous odour destroys the worm or parasite in the windpipe, removes the hard cough, and soothes the lungs and other organs

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The Stockbreeder's Medicine Chest.	No. 1 contains a complete assortment of all our preparations for treating diseases of stock generally,	£6 6 0
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I have great pleasure in saying that your Quinine Tonio Ball exceeded my anticipations. Horses in low condition, and those recovering from illness, showed marked improvement after treatment with them. The Quinine Tonio Ball should prove a boon to all owners f horses.



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I have used your Quinine Tonio Balls, and consider them invaluable for animals recovering from any severe illness, specially from influenza.

GABRIEL & TROKE'S QUININE TONIC and STIMULATING GELATINE CAPSULED HORSE BALLS

(Registered No. 81,291),

Alterative, Condition, Cordial, Cough, Diuretic, Fever, Physic, and Worm Balls.

GABRIEL & TROKE WERE THE FIRST MAKERS OF GELATINE CAPSULED HORSE BALLS.

TO RETAILERS OF HORSE AND CATTLE MEDICINES.



THE "NORFOLK" CONDITION DRENCHES, for Cows, Fattening Bullocks, Sheep, and Pigs
Retail .. .. ½-doz. cases, 4/6; 1 doz., 9/-; 3 doz., 22/6
Wholesale .. .. „ 3/3; „ 6/6: „ 17/6

THE "NORFOLK" CORDIALINE or PAIN KILLER, for Horses, Neat Stock, Sheep and Lambs
Retail .. .. ½-doz. cases, 6/-; 1 doz., 12/-; 3 doz., 31/6
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With usual cash discounts at all London Medicine Houses.

F. SUTTON & CO., NORWICH, are now advertising these celebrated Preparations in the leading agricultural papers, and they are in constant use on the Royal Farms and by noted Breeders all over the kingdom, and especially by more than 3,000 Cowkeepers in Great Britain and Ireland. When once used they are sure to be adopted, as there are no similar preparations equal to them in the market.

HANDSOME SHOW CARDS SUPPLIED.

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Agents Wanted in every Town. Handbills, with Name and Address, supplied gratis

50 YEARS' UNBROKEN SUCCESS.

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TO BE HAD OF USUAL WHOLESALE HOUSES.

By Appointment to H.R.H. the late Prince Consort.

BIGG'S SHEEP AND LAMB DIPPING COMPOSITION,

For Destruction of Ticks, Lice, &c., and Prevention of Fly,

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THE HUSK & SCOUR IN LAMBS & CALVES CURED BY THE DEVONSHIRE COMPOUND.

A distinct preparation from the Devonshire Oils, pronounced to be a sovereign remedy which never fails to cure this deadly disease.

In Bottles, 2/-

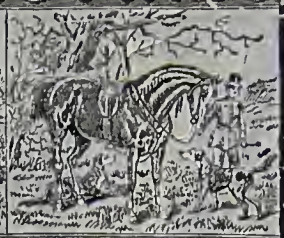
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CORNER'S PINE'S

SOLD EVERYWHERE

FOR CATTLE, HORSES, COWS, CALVES, SHEEP, LAMBS, DOGS &c. Both for Outward and Inward Use





THE GREAT REMEDY FOR ACCIDENTS AND ANIMAL AILMENTS. Supplied by all Wholesale Houses

MANUFACTORY WELLINGTON. SOM

DEVONSHIRE OILS

PRICE 2/-

REGISTERED TRADE MARK. "DEVONSHIRE." BEWARE OF FRAUDULENT IMITATIONS.

CORNER'S FAMILY EMBROCATION SHOULD BE USED ON THE CHEST FOR MEASLES.

Cures Sore Throats, Colds, and Pains in the Chest, Rheumatism, Lumbago, Scalds, Burns, Chilblains, Sprains, &c., &c.

1s. 1½d.

SEE THOUSANDS OF TESTIMONIALS

BATTLE'S VERMIN KILLER. Mice eat it readily and Die on the spot.

TRADE MARK.



TRADE MARK.

Has an immense Sale, and wherever introduced never fails to give satisfaction.—Mice appear attracted to it as by magic, eat it readily, tumble over, and die on the spot. Rats usually die in their runs.—Parties troubled with Vermin may be cleared at once, either from Stacks, Houses, or Ships.

TESTIMONIALS.—*Thousands might be published.*

From Mr. THOMAS COLTON, Agent for Selby.—A friend of mine purchased a Packet of your VERMIN KILLER last night, doubting its efficacy To-day he called in to say that he had found fifteen dead mice, and had only used part of a packet.—From Mr. EDWARD STURDY, Flemington Mills.—duly received by post the Packet of your VERMIN KILLER, and found it as represented in your advertisement. It speedily destroyed all the mice in my granary. I enclose 2s. for two more Packets.—Leeds, November 6th, 1857.—I have tried BATTLE'S VERMIN KILLER, and have found it most effectual in clearing my premises of LARGE QUANTITIES OF RATS.—THOMAS S. CROSLAND.—Mr. Stead.

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MERE'S RENOWNED CATTLE MEDICINES

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These Cattle Medicines have acquired an excellent reputation during the fourteen years they have been in the market.

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STEINER'S

VERMIN PASTE

REGISTERED.

Is used in Australia, New Zealand, West Indies, India, Cape, etc., etc.



Is a Sure and Certain Destroyer of

RATS, COCKROACHES, MICE, AND BLACKBEETLES.

IT NEVER FAILS!!!

The great strength of Steiner's Paste is not impaired in hot climates.

Sold in 3d., 6d., and 1s. Glass Jars, and 2s. 6d. Tins.

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ASK YOUR CHEMIST FOR IT. Established 1868.

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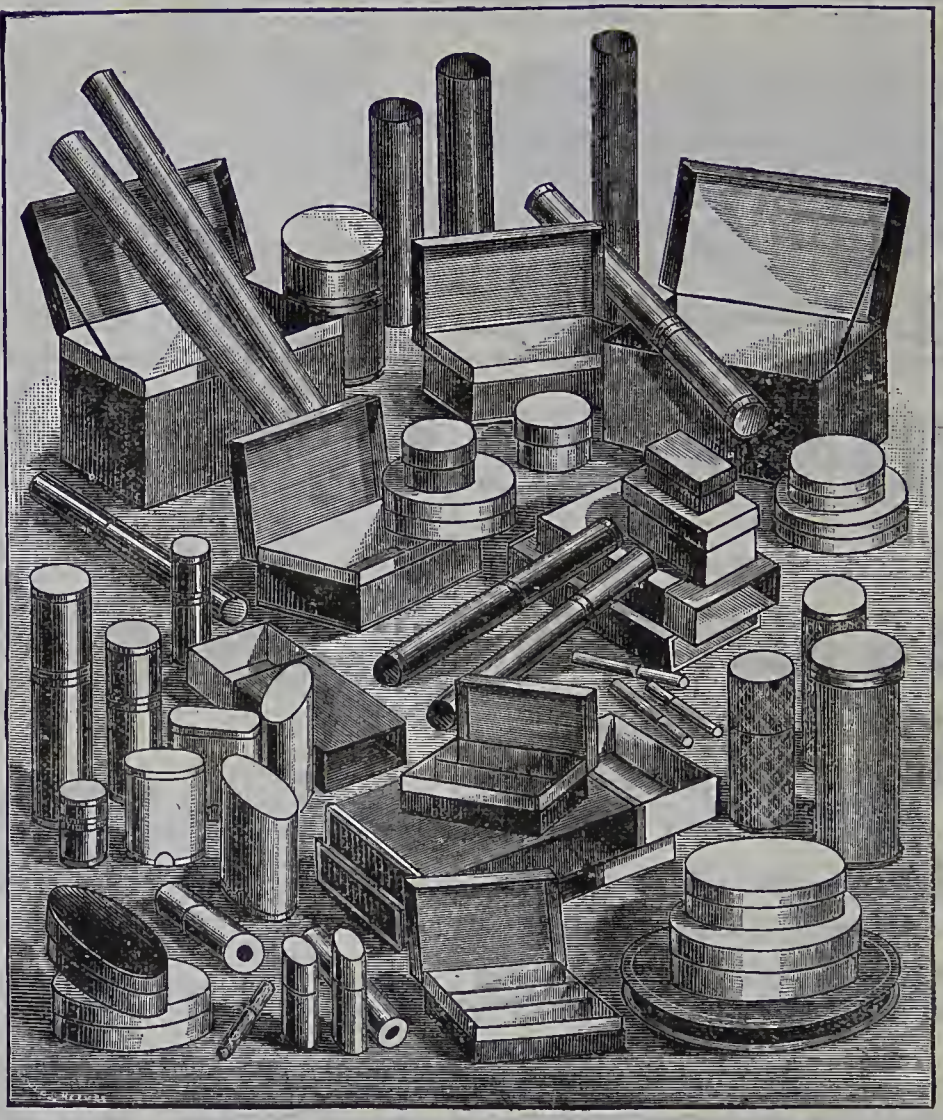
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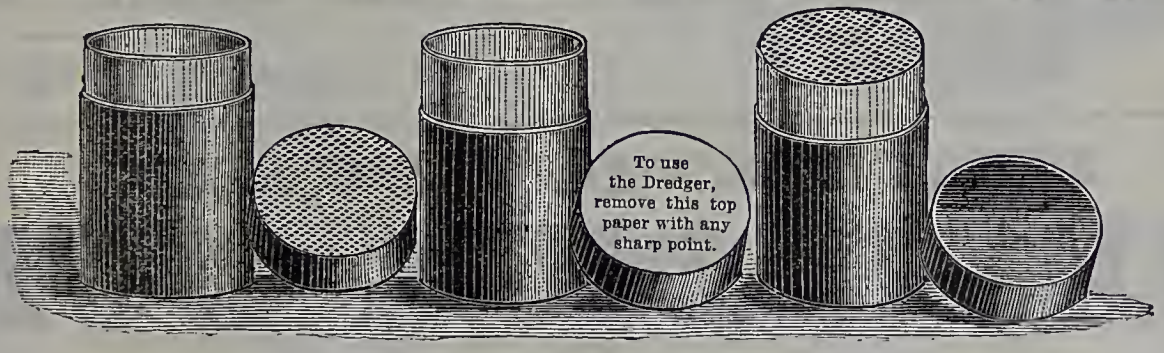
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A PERFORATED ZINC ON TOP OF LID.
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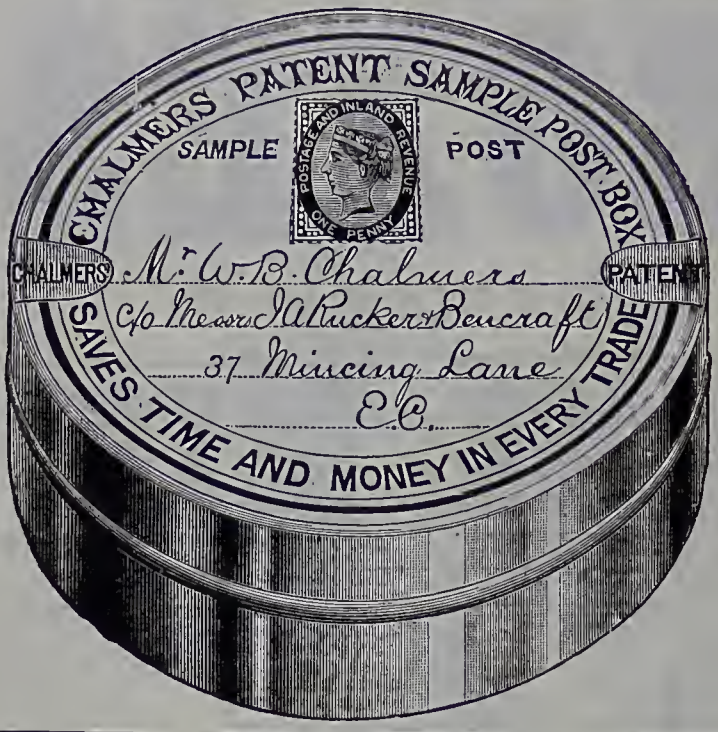
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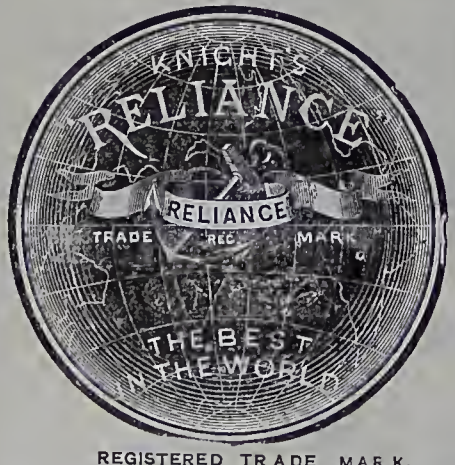
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NOW MOST USED IN SURGERY.
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W. H. B. PURE REFINED.

In 2-lb. cakes, in cases of about 130 lbs.
„ 1 „ „ „ 130 „
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In round cakes in 2-lb. parcels, or in oblong cakes, loose } in cases of 54 lbs.
In oz. cakes in 2-lb. parcels } and 56 lbs.
Plain blocks of 7½ lbs. in cases of 250 lbs.

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Plain round cakes in 2-lb. parcels in cases of 72 lbs.

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We will deliver our goods in 5-cut. lots ex quay, in any city which is the Terminus of a Steamship Line throughout the Kingdom, without trouble or expense to the Buyer.

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The long established superiority of **"Tea Rose," "Royal Daylight," "White Rose,"** and **"Westminster"** American Petroleum Oils, manufactured by the Standard Oil Company of the United States, is well known to the Trade and to Consumers, and no Oils are so widely and justly celebrated. Their superior burning qualities, freedom from odour and from any tendency to smoke, and their general excellence, have placed them above comparison with any and all other brands.

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We shall keep large stocks of these Oils constantly on hand at all our Importing Centres and Depôts, and in this manner be able to supply the Trade promptly. Being the representatives in the United Kingdom of the Standard Oil Company, of America, we are in the best possible position for supplying the trade on the most favourable terms.

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PURE GRAIN SPIRIT 56 O.P., B.P., 18/5, used by the principa Wholesale Druggists

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FINEST GRAIN.

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61 o.p. 2/2 per gall. in casks
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TINS, 2*d.* per gall. extra.

2½ per cent. Delivered any Station

WE ALSO TURN OVER THE VARIOUS GUMS, SHELLACS, WAX, GELATINES, GLUES &c., ON BROKERAGE PROFITS.

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ESTABLISHED 1840.

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CHEETHAM DISTILLERY AND WAREHOUSES,

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VERY HIGHLY RECTIFIED AND CHEMICALLY PURE.

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ORANGE WINE
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Spiritus Rectificatus, P.B., and duty free for Export
ALSO 60 O.P. SPECIALLY ADAPTED TO USE IN THE FINEST PERFUMES
Approved of and used by Chemists in the highest ranks of the Profession. The Best English Grain Spirit

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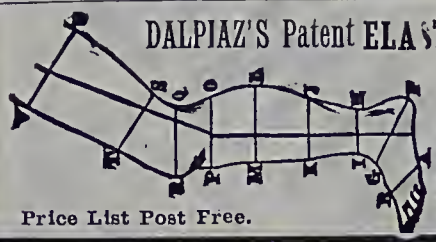
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Liberal reduction to the trade

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Beautifully Transparent Golden Colour. Delicately Perfumed.

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Certificate of Analysis on each tin. **Fruit-Salt**
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GREY WOOL, COLOURED WOOLS, & JEWELLERS' SHEETS.
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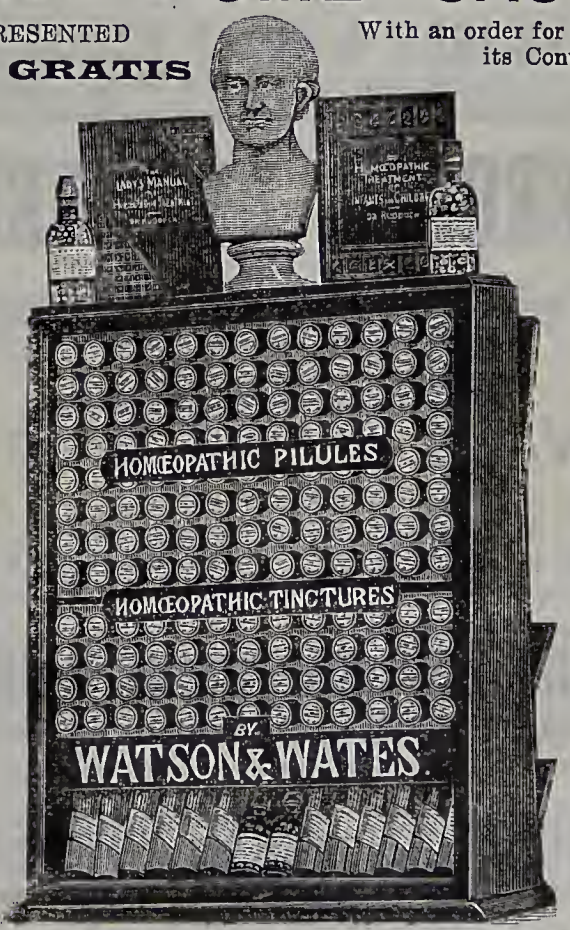
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1/- FOR COUGHS, ASTHMA, BRONCHITIS, DIFFICULTY OF BREATHING AND COLDS OF ANY KIND 1/-
CAN BE HAD FROM ALL CHEMISTS AND DRUGGISTS.
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DAMIANA WAFERS
THE MOST POWERFUL
INVIGORANT
EVER PRODUCED.
Permanently restores those weakened by early indiscretions, imparts youthful vigor, restores vitality, strengthens and invigorates the BRAIN AND NERVES. A positive cure for IMPOTENCY and Nervous Debility. *Prompt, Safe, and Sure.* 4/6 per box, 6 for 22/6. Usual discount to the Trade. Send for Circular.
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THE ACME CASE.

PRESENTED **GRATIS** With an order for its Contents.

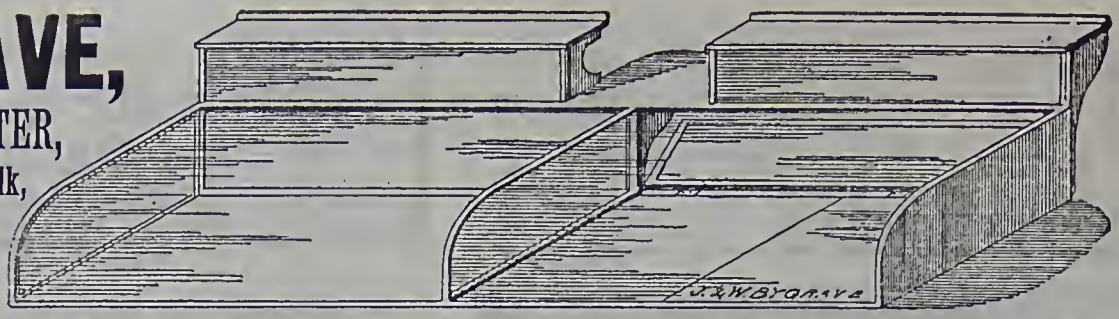


See DIARY, page 339.
Full particulars on receipt of post card.
93 LEADENHALL STREET, LONDON, E.C.

J. ROBBINS & Co. 147 OXFORD ST.
METHYLENE.
Obtained by the action of Metallic Zinc on Chloroform and Alcohol.
Discovered to be a general Anæsthetic by Dr. RICHARDSON in 1867.
Bottles, 16s.; 8-oz., 8s. 6d.; 4-oz., 4s. 6d.; 2-oz., 2s. 6d
COMPOUND ANÆSTHETIC ETHER,
For producing Local Anæsthesia.
In 4-oz., 10-oz., and 20-oz. Stoppered Bottles, 2s., 4s., and 7s.
OZONIC ETHER.
In 2-oz., 4-oz., 8-oz., and 16-oz. Stopperod Bottles, 2s., 3s. 6d., 7s., and
PEROXIDE of HYDROGEN.
First introduced as a Medicine by Dr. RICHARDSON.
ETHYLATE of SODIUM
Dr. RICHARDSON'S Formula), for removing Nævi, &c. In ½-oz. & 1-Bottles, with elongated Stoppers for applying the Caustic, 2s. 6d. &
STYPTIC COLLOID,
For promoting the Healing of Wounds by the first intenti
In 2-oz. and 4-oz. Bottles, with Brush, 2s. 6d. and 4s. 6d.; 16-oz., 12s.
CHARCOAL CAPSULES
Containing Pure Vegetable Ivory Charcoal.
In Boxes, 2s. 6d. each.
J. ROBBINS & Co. OXFORD ST. 147

BYGRAVE,

SHOP FITTER,
111 Shepherdess Walk,
CITY ROAD,
LONDON, N.



Bent-top plate-glass Counter Showcase, in French polished mahogany, or ebonized, with two upright mirror plate-glass fronted shelves, and table in centre for serving over, and mahogany falls at back lined with mirror plate glass, inside fitted with crimson velvet trays—if 5 ft. long, 18 in. wide, 8 in high (total height 13 in.), **£5 10s.**; 5 per cent. off for cash.

CHEMISTS' SHOP FITTINGS, SHOW CASES, &c.

FOR BEST WORK AT LOW PRICES SEND TO

G. TREBLE & CO., 2 KINGSLAND GREEN, DALSTON, LONDON.

PLANS AND ESTIMATES FREE. SPECIAL ATTENTION PAID TO EXPORT ORDERS.

FEEDING BOTTLES.

For quotations of all descriptions see Druggists' Sundries List of undersigned.

See Advertisement, page 25.

EVANS, SONS & CO.

LIVERPOOL.

LONDON:
EVANS, LESCHER & WEBB,
60 Bartholomew Close.

CANADA:
EVANS AND SONS, LD.
Montreal, Toronto, and Victoria, British Columbia.

GRIFFITHS' SUPERFINE ROUGE

In 6d. and 1s. Boxes, 42s. and 84s. per gross.

(As supplied to Jewellers and Silversmiths all over the World.)

GRIFFITHS' PLATE POWDER

In 6d. and 1s. Packets, 42s. and 84s. per gross.

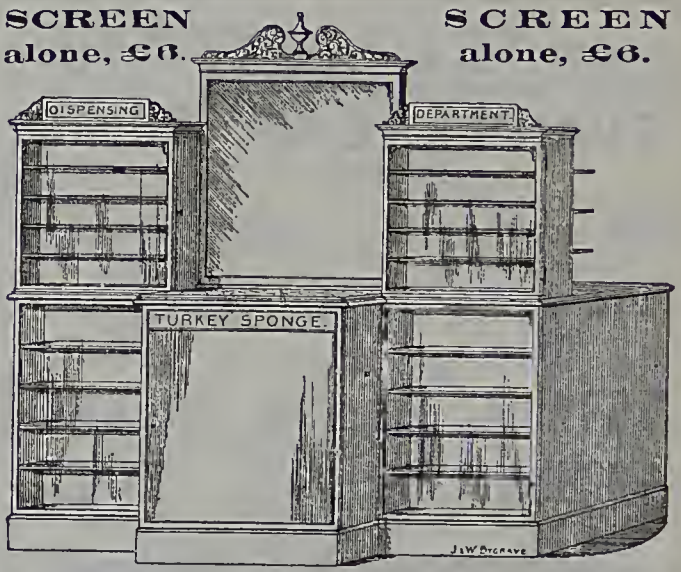
(For Household and general purposes.)

TO BE OBTAINED OF ALL WHOLESALE HOUSES, OR OF

T. M. GRIFFITHS,

Putty Powder, Steel Polish, & Polishing Paste Manufacturer,
1a Upper Charles Street, London, E.C.

SCREEN alone, £6. SCREEN alone, £6.



The above represents a solid mahogany Dispensing Screen and glass fronted Counter. The Screen has a glass case at each side, with plate-glass tablets and gold writing on top—"Dispensing Department"; and a plate-glass mirror with marble slab in centre, with mahogany ornamental wood on top. Doors of screen are glazed with best 21-oz. glass, and inside the cases are polished black, with three long shelves right along the back for dispensing bottles. The Counter opens in front with three solid mahogany doors glazed with best 21-oz. glass, centre for sponges underneath. Counter at the back is fitted with a nest of deal drawers and shelves. If 6 feet long, and 5 feet high to top of cases, complete, **£11 10s.**

J. & W. BYGRAVE.

SHOP FITTERS,
111 Shepherdess Walk, City Road, LONDON, N.

For further particulars please send Business Card.

W. HAWKE & SON,

SHOP FITTERS AND SHOP FRONT BUILDERS

WILD COURT, GT. WILD ST., DRURY LANE, LONDON, W.C.

SHOP FITTINGS.

We beg to call the attention of the Trade to this department of our business. We are in a position to tender for same to suit every description of shop, or any measurements, and can guarantee them to be of the very best workmanship.

SHOW CASES, &c.

Of every description, for full particulars of which see Prices Current.

SHOP ROUNDS, LABELLING, ETC.

Estimated for and undertaken at Customers' own shops if desired.

The following gentlemen, having recently had their shops refitted throughout, can be referred to as to the quality of work :—

Mr. VERDON, Stockport.
„ HAMNETT, Manchester.
„ MORRIS, Portmadoc.
„ STEPHENSON, Liverpool.
„ T. A. STEAD, Freshfield.
„ A. ALLAN, Inverness.
„ R. T. RICHARDSON, Liverpool.
„ H. C. THOMPSON, Liverpool.
„ J. FAWCETT, New Ferry.
„ A. E. SLINN, Nuneaton.
Mr. T. B. DAVIES, Rock Ferry.
Messrs. PEARSE & CO., Limerick.
Mr. JACKSON, Blackpool.
„ WITHERS, Blackpool.
„ McIVER, Dingwall.
„ G. D. YATES, Birkenhead.
„ P. H. A. HUGHES, Liverpool.
„ A. B. RHODES, Manchester.
„ T. M. COOKE, Hindley.
„ W. PLATT, Southport.

EVANS, SONS & CO., LIVERPOOL.

LONDON:
EVANS, LESCHER & WEBB.

CANADA:
EVANS & SONS, LIMITED.

"THE CHEMIST" DISPENSING COUNTER

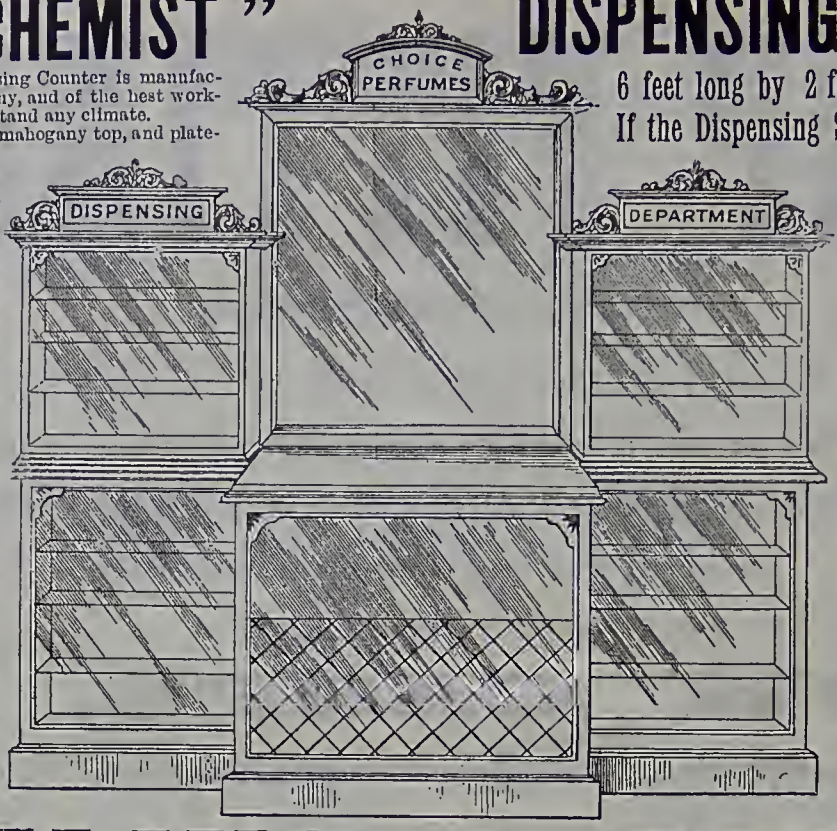
This handsome Dispensing Counter is manufactured in Spanish mahogany, and of the best workmanship, so that it will stand any climate.

The counter has a solid mahogany top, and plate-glass case front. The centre part fitted to take sponge.

A mahogany screen on top, consisting of two plate-glass cases, with shelves inside, and large plate-glass mirror in the centre, and three glass tablets with gold writing in ornamental mahogany carved work.

The back of screen fitted with small shelves and a glass poison cupboard.

The inside of counter fitted with strong counter drawers, label and cork drawer, open shelves, &c.



6 feet long by 2 feet wide ... £24
If the Dispensing Screen only, £12

BOWLING & GOVIER LONDON LONDON B G TRADE MARK GUN ST. BISHOPSGATE

NOTICE.

BOWLING & GOVIER are makers and designers of—
"THE PHARMACEUTICAL" Dispensing Counter.
"THE SPECIAL" Dispensing Counter.
"THE CHEMIST" Dispensing Counter.
"THE PRIZE" Dispensing Counter.

Illustrations and prices upon application.

NOTICE TO THE TRADE.

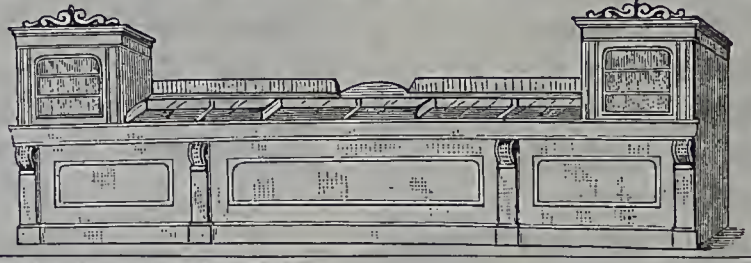
In consequence of inferior Secondhand Goods being sold for our make, we have found it necessary to protect our reputation for best work with a Trade Mark, as above, and unless goods are so stamped we cannot be answerable.

BOWLING & GOVIER,
MANUFACTURERS OF HIGH-CLASS SHOP FITTINGS,
GUN STREET, BRUSHFIELD ST., BISHOPSGATE, E.C.

Shops fitted complete, Chemists waited upon in any town in the United Kingdom, and Plans and Estimates supplied.

W. S. YATES
(ESTABLISHED 1864),
CHEMISTS' AND GENERAL SHOP FITTER,
SHOP FRONT BUILDER AND GLASS SHOWCASE MAKER,
9 CAMDEN STREET, LIVERPOOL.

PLANS & ESTIMATES supplied for Work In any part of the Kingdom.



ALTERATIONS and REMOVALS also Estimated for.

The following are some of the Chemists' shops fitted by W. S. Y.:—

Mr. AGNEW (2 shops), Great Homer Street, Liverpool.
" WARHURST (4 shops), Stanley Road, Liverpool
" MARTIN (2 shops), Lime Street, Liverpool.
" HALL, Breckfield Road, Liverpool.
" THOMAS, Lark Lane, Liverpool.
" BLACKBURN (2 shops), Tuebrook, Liverpool.
" BUDDEN (5 shops), Dale Street, Liverpool.
" WOODCOCK, Scotland Road, Liverpool.
" FLETCHER, Breck Road, Liverpool.
" PURCELL, Walton Road, Liverpool.
" EVANS, Elam Bank, Liverpool.
Messrs. KNOWLES & WRIGHT, Castle Street, Liverpool.
Mr. CRAWLEY, Rice Lane, Liverpool.
" OALEY (2 shops), Stanley Road, Livorpool.
" ADAMS, Granby Street, Liverpool.
Mr. CLARKE, Warwick Street, Liverpool.
" JEWELL, London Road, Liverpool.
" BROWN, Stanley Road, Liverpool.
" HUGHES, Mill Street, Liverpool.
" HARRIMAN, Brownlow Hill, Liverpool.
" JOSEPH, Great Homer Street, Liverpool.
" SANT, West Derby Street, Liverpool.
Messrs. J. H. & S. JOHNSON, Church Rd., L'pool.
Mr. JONES, County Road, Liverpool.
" PARRY, Stanley Road, Liverpool.
" EDWARDS, Litherland.
" WRIGHT, Leek.
" THOMAS, Aberystwyth.
" BOWEN, Criccieth.
" R. PHEYSEY, Waterloo.
" T. MARTIN (2 shops), Waterloo.
" EVANS, Millam, Cumberland.
Mr. BREWITT, Sandy, Bedfordshire.
" BAKER, Chester.
THE CHEMIST CO., Wem, Salop.
Mr. BENNETT, Widnes.
" ROSE, New Brighton.
" CLEMENTS (2 shops), Egremont.
" LEWIS, Rock Ferry.
" COLE, Claughton.
" MARSON (drawers only), Stafford.
" WOODS (cases and drawers), Warrington.
" RICHARDSON, Fern Grove, Liverpool.
Messrs. WALKER & SON, Myrtle St., Liverpool.
Mr. RIGHTON, Southport.
" A. M. SUDLOW, Southport.
" SUART, Penny Street, Lancaster.
" PREECE, Oxton.
" CHABOT, West Kirby.

SECOND-HAND FIXTURES OCCASIONALLY ON HAND. DENTISTS' CASES, &c. &c.
SHOPS TO LET FOR NEW BUSINESSES.
All kinds of Glass Work in Name Plates, Shelves, Outside Lettered Slips, &c.

ELKANAH NATALI,

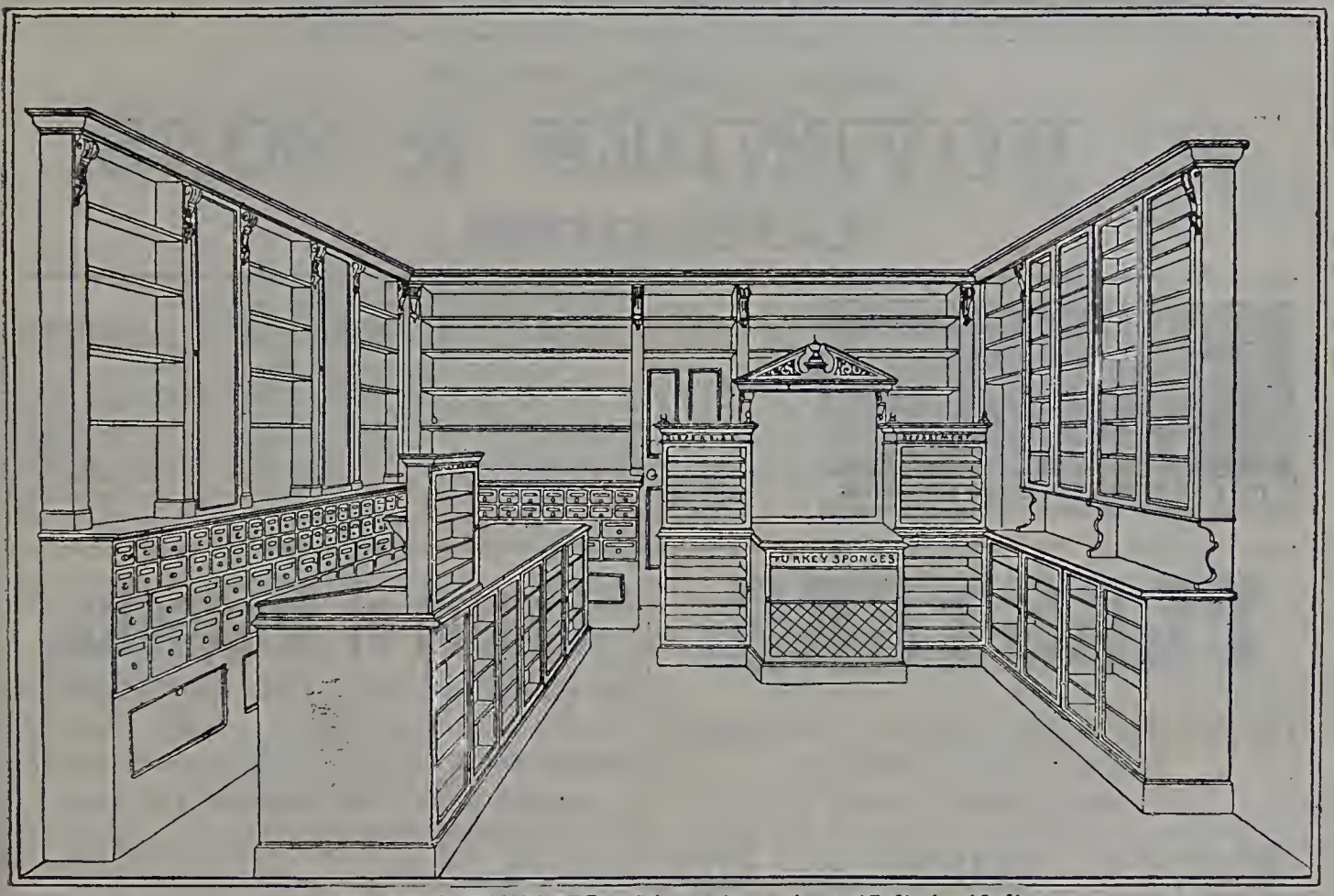
SHOP FITTER AND GLASS CASE MAKER,

207 OLD STREET, "Shoreditch End," LONDON.

(NEAR COUNTY COURT).

ESTABLISHED 20 YEARS.

Only Address. *All Work Guaranteed.* *No Connection with any other House.*



£95 SHOP COMPLETE. Dimensions about 15 ft. by 13 ft.

Hundreds of Testimonials. **Special price given for any part of the above Fittings.**

PARTICULARS OF CHEMIST'S SHOP FITTINGS.

To enclose windnw with a solid mahogany front. to open with mahogany doors, glazed with star pattern glass; top of enclosnre polished black and glazed with stout sheet glass, with iron tramways for carboys.

LEFT-HAND SIDE OF SHOP.

To snpply and fix a run of mahogany-fronted dovetailed drawers, with glass knobs and bevelled-edge glass labels to each drawer (any names); under drawers, fitted with bottle lockers to open with falls, stained and polished to match mahngany; above drawers, fitted with mahogany cover-board for ointment jars to stand on; above same to have mahogany-fronted pilasters (fnr supporting shelving), with carved mahogany trusses, and mahogany faced shelving. surmonnted by a bold mahogany moulded cornice; between shelving to have one or two poison cupboards, fitted inside with black shelves, enclosed with silvered plate-glass door.

BACK OF SHOP.

Against wall to fix a nest of mahogany-fronted dovetailed drawers, with glass knobs and bevelled-edge glass labels to each drawer; underneath same to have pine-stained and polished lockers, for bottles, &c., to open with falls; above drawers to have a mahogany cover-board for ointment jars, &c.; above same to have mahogany-fronted pilasters (to support shelving), and shelving to have mahogany fronts, surmounted by mahogany moulded cornice to match that behind serving counter; behind dispensing counter fitted with a pine stained and polished cupboard, with shelves inside to open with panelled doors; above same to have pilasters, shelving, cornice, &c., to match that behind serving counter.

RIGHT-HAND SIDE OF SHOP.

To supply a mahogany plate-glass wall-case, fitted inside with black movable shelves—the top part to stand on mahogany brackets, bottom part also mahogany and plate-glass doors, with shelves inside. The top of wall-case fitted with a mahogany moulded cornice, to match that behind serving counter; adjoining bottom part of wall-case, parallel with back of shop, a mahogany and plate-glass dispensing counter, with sponge-case in centre, with tablet "Turkey Sponge"; each side of sponge case to have plate-glass cases, fitted inside with shelves; the counter to have a solid mahogany top, 2 ft. wide; fitted on counter a very elaborate dispensing screen, with silvered plate-glass centre, mahogany carving on top, and marble slab in front; at each side of mirror to have mahogany cases to open with plate-glass doors, fitted inside with black movable shelves, silvered glass backs, tablets on top—"Dispensing Department," and three shelves at back the entire length for dispensing bottles.

ON FLOOR OF SHOP.

To fix a mahogany serving counter, 3 ft. high and 2 ft. wide; plate-glass case front, fitted inside with black movable shelves and doors to open, solid mahogany top with moulded edge; on top of counter to have a mahogany and plate-glass show-case to correspond with screen, with writing desk at back, to open with a mahogany flap, fitted with lock and key, and pigeon-holes inside; underneath serving counter a nest of deal drawers (13 in number), comprising till with lock and key, two paper, two label, and eight other large drawers.

All the above-mentioned to be fixed in a proper and workmanlike manner, within 100 miles of London, for the sum of Ninety-five Pounds (£95).

Packed Free. **Chests, &c., to be returned or paid for.** **Carriage to be paid by Consignee.**

A. S. LLOYD'S EUXESIS,

For Shaving without Soap, Brush, or Water.

CAUTION.

The only Genuine has a yellow label printed ONLY in Black Ink, and bears the original address of the late inventor, "27 Glasshouse Street, Regent Street," the proprietors having purchased, under an administration suit, the Secret, Trade Mark, Goodwill, and Premises:

SOLE PROPRIETORS

R. HOVENDEN & SONS,

LONDON.



USED BY SURGEONS ALL OVER THE WORLD.

In ONE WEEK three curious uses were reported for which

"THE LEICESTER" IMPROVED ADHESIVE PLASTER,

On Fine Flesh-coloured Cambric,

is found the best, after trying other makes (in the first case, nearly every known plaster). A well-known actor said he had the good fortune to meet with it in the South of England, and had inquired for it wherever he went since. It is the only plaster he can find to answer for fixing false hair, &c. A chemist in the North wrote and said a lady violinist would have nothing else; she uses it to make a pad to protect her fingers. A chemist in Yorkshire has a customer who uses plaster to keep his eyes open, and nothing will hold the lids up so well as "The Leicester" Improved Adhesive Plaster on Fine Flesh-coloured Cabric. *Surgeons in all parts are frequently commending it. The Sale rapidly increases*

PLASTERS.

For quotations of all descriptions see Druggists' Sundries List of undersigned.

See Advertisement, page 25.

EVANS, SONS & CO.

LIVERPOOL.

LONDON:
EVANS, LESCHER & WEBB,
60 Bartholomew Close.

CANADA:
EVANS AND SONS, LD.
Montreal, Toronto; and Victoria, British Columbia.

"Cream of Magnolia."

MATCHLESS FOR THE COMPLEXION.

A Marvellous and Unique Preparation for Softening, Toning, and Beautifying the Skin.

INVALUABLE for removing Spots, Sunburns, Blotches, and all Imperfections.

IMPARTS A VELVETY SOFTNESS AND BLOOM.

Renders it Beautiful to the Eye, and deliciously soft to the Touch. Can be used with the most perfect safety to any child or infant.

In Bottles, post free, 2s. 6d., 4s., 7s., and 10s. 6d., or Sample Bottles, post free, 1s. 3d., direct from the Proprietor,

JOHN STEEDMAN,

154 QUEEN'S ROAD, BAYSWATER, LONDON, W.

And of all Chemists throughout the World.

ESTABLISHED 1836.

Ladies once using this Preparation will never be without it.



WRIGHT'S MYRRH TOOTH SOAP.

The Most Elegant Dentifrice on the Market.

REMOVES TARTAR. PRESERVES THE ENAMEL. PREVENTS DECAY. GIVES PEARLY WHITE TEETH. HARDENS & STRENGTHENS THE GUMS. CURES OFFENSIVE BREATH. A GEM FOR THE TOILET

Put up in an attractive manner for show case display, and contains in a modified form the medicinal properties of Myrrh. It is an elegant saponaceous Dentifrice, absolutely pure, containing no mineral or acid substance, and no ingredient entering into its composition is in the least degree harmful or unwholesome.

8/- PER DOZEN.

CAN BE OBTAINED OF

H. A. GOODALL & CO.

Bartlett's Buildings, Holborn Circus, LONDON, E.C.

A. S. LLOYD'S EUXESIS,

FOR SHAVING WITHOUT SOAP, WATER, OR BRUSH.

CAUTION.

The labels on genuine EUXESIS bear signature of Inventor, A. S. LLOYD, in *BLACK INK*, and the signature of his Widow, AIMEE LLOYD, in *RED INK*. Refuse all others.

Manufacturer: **AIMÉE LLOYD** (WIDOW OF A. S. LLOYD, formerly of 27 GLASSHOUSE STREET)

3 SPUR STREET, LEICESTER SQUARE, LONDON.

N.B.—When ordering from Wholesale Houses, write "LLOYD'S EUXESIS (WIDOW'S)."

E. FOUGERA & CO.,

No. 30 NORTH WILLIAM STREET,
NEW YORK, U.S.A.,
Importers of and Agents for the Principal
FOREIGN MEDICINAL PREPARATIONS AND SPECIALTIES.
AGENCIES AND CORRESPONDENCE SOLICITED.

SPONGE IMPORTERS.

M. PETERSON & CO.

(ESTABLISHED 1870),
75 ST. ANNE STREET, LIVERPOOL.

FOR HOME, FOREIGN, & COLONIAL MARKET.

TOILET REQUISITES.

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See Advertisement, page 25.

EVANS, SONS & CO.

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CANADA:
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H. P. TRUEFITT'S SPECIALITIES FOR THE HAIR.

Floral Extract, 3/6, 5/-, 10/6, 21/-
Egg Julep, 2/-, 4/-.
CONCENTRATED Egg Julep, 2/6, 5/-, 10/6.
Golden Fluid, 10/6, 21/-.
EUXURON, 1/6.
&c.

EUCHRISMA. Combines in one clear Fluid every valuable Component both of a Hair Grease and Wash, 3/6, 5/-, 10/6, 21/-.

EAU RACINE. For renewing the original colour of Grey Hair; superior to all other Restorers, being perfectly simple in its Components. Price 6/-

Stimulating Lotion, 5/-, 10/6.
Astringent and Tonic Lotion, 5/-, 10/6.
Quinine and Arnica Hair Wash, 3/6, 5/-, 10/6, 21/-.
Arnica Wash, 3/6, 5/-, 10/6.
&c.

An elegant Preparation for the Hair and Beard.
Price 2/6, 3/6, 5/-, 10/6, 21/-.

BRILLANTINE.

H. P. TRUEFITT'S TONIC TOOTH BRUSH

(BY ROYAL LETTERS PATENT.)
PRICE ONE SHILLING.
20 & 21 Burlington Arcade; 13 & 14 Old Bond St., London.

EDWARDS' INSTANTANEOUS HARLENE



Positively forces the HAIR, WHISKERS, and MOUSTACHIOS to grow heavily in a few weeks without injury to the skin, and no matter at what age. The world-renowned remedy for baldness from whatever cause arising. As a producer of whiskers and moustachios it has never been equalled. As a curer of weak and thin eyelashes, or restoring grey hair to its original colour, it never fails.

1/-, 2/6, 3/6, and 5/6 per Bottle.

NOTICE.—Show-cards and Circulars, Terms, and all other Particulars may be had by writing direct to us,

Agents Wanted, Country and Abroad.

EDWARDS & CO.

50 NEW OXFORD ST., LONDON, W.C.



ENORMOUS SALE.

HIGHEST AWARD AND MEDAL, 1888.
SPECIAL AWARD & GOLD MEDAL, 1889.

PETAL DUST.

PETAL DUST

The Great Floral Air Purifier and Everlasting Perfume.

has secured the HIGHEST AWARD wherever exhibited, and the Sale of nearly **One Million** packets within the last few years bears good proof as to its popularity with the public.

CHEMISTS will find PETAL DUST the best selling line for all Seasons.
Hundreds of Testimonials have been received.

PRICES.

3d. Size, in Boxes containing	**3 dozen**	... ...	**6s. 0d. per box**	}	**Net.**
6d. ,, ,,	**1** ,,	... ...	**3s. 6d.** ,,		
1s. ,, ,,	**1** ,,	... ...	**7s. 0d.** ,,		

Order through your Wholesale House, or, CASH WITH ORDER, direct from SOLE PROPRIETORS—

THE ROSMARINE MANUFACTURING CO., LONDON AND PHILADELPHIA.

LONDON OFFICE—54 STAMFORD STREET, LONDON, S.E.
CITY DEPOT—H. C. QUELCH, 19 LUDGATE HILL, LONDON, E.C.

MADAME LAMPLOUGH'S WORLD-FAMED PREPARATIONS.



ROSENE.
MILK OF ROSES.
ROSENE SOAP.
HAIR TONIC.
HERBAL TONIC

PRIMROSE OINTMENT.
HAIR DYE.
GOLDEN HAIR WASH.
ELECTROYAL.
FOR INFLUENZA.

Prepared by

THE ROSENE MANUFACTURING CO.

6 MILK STREET, CHEAPSIDE, LONDON, E.C.

HOPGOOD & Co's HAIR NUTRITIVE & SEDATIVE CREAM

The only preparation for the Hair recommended by leading Physicians for the removal of Scurf, allaying Irritation, preventing greyness and baldness, and producing a

LUXURIANT HEAD of HAIR.

In Bottles to retail at 1s. 6d., 2s., 2s. 6d., 3s. 6d., 5s.
Revised Wholesale Prices, 12s. 6d., 16s. 6d., 20s., 30s., and 42s. per dozen
Supplied by all Wholesale Sundry Houses,
OR FROM THE DEPOT—
OSBORNE, GARRETT & CO., 51 Frith St., Soho, London, W.

PERFUMERY

For quotations of all descriptions see Druggists' Sundries List of undersigned.
See Advertisement, page 25.

EVANS, SONS & CO.

LIVERPOOL.

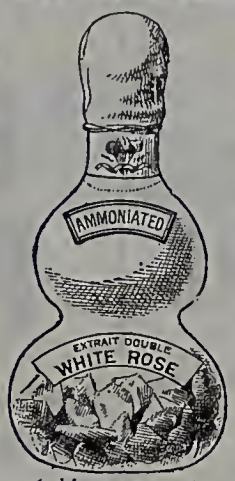
LONDON:
EVANS, LESCHER & WEBB,
60 Bartholomew Close.

CANADA:
EVANS AND SONS, LD.
Montreal, Toronto; and Victoria British Columbia.

E. CHEESEMAN—J. HOLDSWORTH,
TRADING AS
OSBORNE, BAUER & CHEESEMAN
Perfumers to the Queen, 19 GOLDEN SQUARE, REGENT STREET, LONDON,
MANUFACTURERS OF THE BEST PERFUMERY IN ALL ITS BRANCHES
AND OF PURE REFINED AND RE-MELTED SOAPS.
OLD STYLE. NOT "MILLED."

NEW SERIES OF
AMMONIATED PERFUMES.

COMBINING IN ONE BOTTLE
SMELLING SALTS
AND
PERFUME
FOR THE
HANDKERCHIEF.



(½ SIZE)

TO BE USED AS A
PUNGENT,
AND
IN THE USUAL WAY
AS A
BOUQUET.

All Varieties of PERFUMES.
AN ELEGANT PRESENT.

One Shape. One Price. Retail 2/6.
2 OR 3 IN FANCY BOXES.

SOLE PROPRIETORS OF THE FOLLOWING SPECIALITIES:
"BABY'S SOAP." "CHILBLAIN JELLY." "GLYCERINE AND HONEY JELLY."
"BAUER'S HEAD (AND BATH) SOAP." "CRISTIN'S RUBY LIP BALM." "THE INCOMPARABLE SMELLING SALTS,"
As supplied to the Queen (lately styled "*Inexhaustible*").
"Carbolic Acid and Tar Toilet Soap." "Cosmetic Petroline Soap." "Cosmetic Petroline Soap" (unscented). "Pure Oatmeal Soap" "Juniper Tar Oil Soap." "Marlborough Soap." "Petroleum or Dispensing Soap." "Sulphur Soap." The Real Old Windsor (blue packets) as made in the last century.



THE NEW PUMP-ACTION
PERFUME SPRAY
(NO RUBBER TO PERISH).

These are very simple in construction, and much less likely to get out of order than those with indiarubber fittings. The valves are made of silver, so as not to corrode.

Price from 37/- per doz. upwards.

E. BENTLEY & SON,
Druggists' Sundriesmen and Medicine Chest Manufacturers,
14 TABERNACLE STREET. E.C.

TOOTH BRUSHES.

For quotations of all descriptions see Druggists' Sundries List of undersigned.
See Advertisement, page 25.

EVANS, SONS & CO.
LIVERPOOL.

LONDON:
EVANS, LESCHER & WEBB,
60 Bartholomew Close.

CANADA:
EVANS AND SONS, LD.
Montreal, Toronto; and Victoria, British Columbia.

Trade Mark.  Registered.

THE
ASSOCIATION for the SUPPLY of PURE VACCINE LYMPH,
12 PALL MALL EAST, LONDON, S.W.
SOLE AGENTS FOR DR. WARLOMONT'S CALF VACCINE.
Tubes, 2s. each; Half Tubes, 1s. each. Pomade in vials, 5s.
HUMAN VACCINE, from healthy children only, microscopically examined and source quoted. Tubes, two-thirds full, 1s. 8d. each; Tubes one-third full and Lancet-charged points, 1s. each; Pin-points, 1s. 1d. each. Eighteen charged Small Points, 5s. Tubes, two-thirds full (same as those mentioned above, but without source), in quantities for export, £5 per 100 Tubes. Pin-points uncharged, 1s. per dozen. Vaccine Ejectors, 1s. 3d. each, including postage. Vaccinations by appointment. P.O.O.'s (including postage, and crossed London and Westminster Bank) with orders, payable to
EDWARD DARKE *Secretary*
Office hours, 10 *to* 4. *Saturdays* 10 *to* 2.



Walking is now really a pleasure to me.

COMFORT FOR THE FEET.

Corns and Bunions may be removed, and enlarged Toe Joints reduced, *by using Thompson's New French Corn Plaster.* Sole Proprietor, M. F. THOMPSON, Homœopathic Chemist, 17 Gordon Street, Glasgow, from whom the Plaster may be had in Packets, *by post, for fourteen stamps.* Those who are troubled with the discomfort of Corns or Bunions will be glad to have attention called to this remedy, as it removes pain very speedily. It is a simple Plaster, thin as silk, and comfortable to the foot.

Ask your Chemist for it, and take no Substitute.

Wholesale 9/6 per dozen, *cash* with order, *post free.*
May also be obtained through London Wholesale Houses.

It is put up on Cards. "Very saleable."

COURT PLASTERS.

For quotations of all descriptions see Druggists' Sundries List of undersigned.

See Advertisement, page 25.

EVANS, SONS & CO.
LIVERPOOL.

LONDON: EVANS, LESCHER & WEBB, 60 Bartholomew Close.

CANADA: EVANS AND SONS, LD., Montreal, Toronto; and Victoria, British Columbia.

THE IMPROVED MUSTARD PLASTER THAT NEVER BLISTERS THE SKIN.



TRADE MARK.

COOPER'S SINAPINE MUSTARD TISSUE PAPER.

For Medical Testimonials see *Chemist and Druggist*, January 26, 1889.

Inventors and Sole Manufacturers:

COOPER & CO.

Pharmaceutical Chemists,
GLOUCESTER ROAD, SOUTH KENSINGTON, S.W.
Established 1863.

May be obtained of Wholesale Agents throughout the civilised world.

EWEN'S LARD
IS
GUARANTEED PURE.

EVERY GENUINE PACKAGE BEARS THEIR LABEL

Trade Mark.



Facsimile of Label.

Trade Mark.



Facsimile of Label.

EWEN'S
Clarified Fat Works,
Perfumery and
Toilet Soap Factory,
5 HATFIELD STREET, LONDON, S.E.

PARIS EXHIBITION, 1889.
PRIZE MEDAL AWARDED TO



"SALVO PETROLIA"

(VASELINE).

Absolutely Genuine Paraffinum Molle of the very Purest Form, and we claim that it is superior to Vaseline.

Packed in Tins, 1, 4, 10, 14, 28, 56, and 112 lbs.

"OLEUM DEELINÆ"

(REGISTERED).

Universally adopted by the Medical Profession for

ECZEMA,
OPHTHALMIA, SCURVY, RINGWORM,
ITCH, PILES, SKIN DISEASES,
FOR
EXTERNAL & INTERNAL IRRITATION
OF EVERY KIND.

PACKED IN CASES—
One Doz. 1s. 6d. Bottles; One Doz. 2s. 6d. Bottles
or half of each.
TESTIMONIALS MAY BE HAD UPON APPLICATION.

"EDIBLE SALVO PETROLIA"

For Public Speakers, Actors, & Singers.
1s. per Tube.

The above are Manufactured Solely by the Proprietors,

THE DEE OIL COMPANY, LIMITED.

Works—SALTNEY, CHESTER.
OFFICES:
LONDON — 38 LEADENHALL ST., E.C.
Liverpool, Dublin, Manchester, Glasgow, Hull, Cardiff, Bristol, Belfast, Barrow-in-Furness, Nottingham, Paris, Hamburg, &c.

PATRONISED BY HER MAJESTY.

BARBER'S

ORIGINAL

CRIMSON MARKING INK,



Which is changed by Heat to a Jet Black.

PUT UP FOR RETAIL SALE IN

6d., 1s., 2s., 2s. 6d., & 5s. Bottles.

ALSO BARBER'S

CONCENTRATED LIQUID COCHINEAL,

FOR COLOURING JELLIES, CUSTARDS, &c.

Put up in 6d. and 1s. Bottles.

ALSO BARBER'S

ARTIFICIAL IVORY,

For Filling Decayed Teeth, 1/- per packet.

MANUFACTURED ONLY BY THE PROPRIETORS—

G. BARBER & CO., Club Moor, LIVERPOOL.

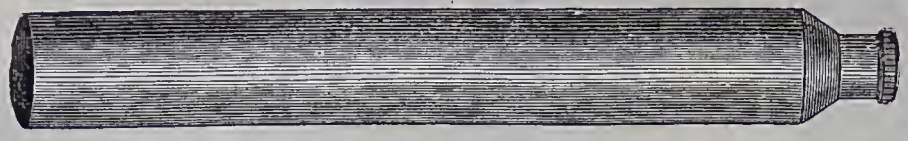
Can be obtained through any of the Wholesale Firms in Great Britain, or from FELTON, GRIMWADE & CO., Melbourne; ELLIOTT BROS., Sydney and Brisbane; KEMPTHORNE, PROSSER & CO., Dunedin and Auckland; FELTON, GRIMWADE & CO., Wellington; or direct from the Manufacturers—G. BARBER & CO., Club Moor, Liverpool, England.

H. BROOKS, PEEL & CO. [ESTAB. 1810.

COLLAPSIBLE TUBE MANUFACTURERS,

Patentees and Sole Manufacturers of the PORTABLE METAL SPRINKLER STOPPER, and Dealers in GLASS BOTTLES FOR PERFUMERS AND OTHERS.

Steam Factories: 31 Lyme Street, Camden Road (Offices), and Bartholomew Road, Kentish Town, London, N.W.



COLLAPSIBLE TUBES

OF ALL SIZES.

For Perfumes, Artists' Colours, Soaps, Cosmetiques, Creams, Oils, Varnishes, &c. These Tubes are inexpensive and portable, and may be applied to many useful purposes besides those above mentioned.



SOLE MANUFACTURERS AND PATENTEES OF

THE PORTABLE METAL SPRINKLER STOPPER,

With Cork fitted thereon for bottles of any size, and having apertures of various dimensions, especially adapted for Perfumes, Hair Washes, Lime and Glycerine Essences, &c. These handsome stoppers give a character and finish to the most ordinary bottles to which they may be applied. Gilt or plain; and put up if required in handsome glass lid boxes, suitable for shop counters and show cases, at moderate prices.



THE "TORSION" PATENT SPRINKLER



No. 1.

The two designs, Nos. 18A and 19A, are those to which we direct special attention, as sizes being in general use; other sizes will follow promptly to meet all requirements, on which Caps with two or more holes will be introduced to meet the public taste.

Particular attention is called to the latest improvement in our Patent Metallic Stopper, the "Torsion."

This New Stopper adheres to the design of the original patent, which has been universally acknowledged as an ornamental and inexpensive article for the Toilette, as possessing all the advantages of a "Permanent and Indestructible Stopper, suitable for Bottles of all Sizes and Shapes," with the additional security it affords, that the Cap can never be entirely unscrewed, consequently it cannot be lost. It is specially effective as a Sprinkler, while giving a more prompt and copious, yet economic, supply, through the improved action of the Cap. Such combined advantages, in an article of exquisite finish, have long been desired, and it is thus submitted for general approval, and its usefulness when tried will be appreciated by all.

Illustrations, Price Lists, &c., can be had on application, or through any Wholesale House in town or country. All orders received direct will be promptly attended to.

CAUTION.—All Stoppers of our Manufacture are made of Pure Tin, and have the name of H. BROOKS & CO. stamped on the under side of the rim.

All Tubes are made of Pure Tin unless specially ordered of Mixed Metal, from the smallest size up to 13 in. by 2⅜.



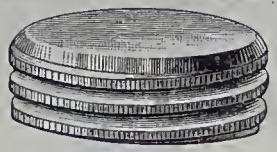
No. 19A.



METAL BOTTLE CAPS AND SCREWED BOTTLES.

For Paints, Perfumes, Soaps, Creams, Oils, and all Fluid or Semi-Fluid Substances.

PERFUME SPRINKLERS AND BOTTLES.





H. G. SANDERS & SON

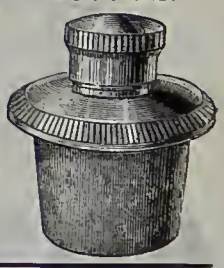
MANUFACTURERS,

VICTORIA WORKS, VICTORIA GARDENS, NOTTING HILL GATE,

LONDON, W.

[4]

TELEGRAPHIC ADDRESS: "COLLAPSIBLE LONDON." ESTABLISHED 1820.



PILL BOXES.

For quotations of all descriptions see Druggists' Sundries List of undersigned.

See Advertisement, page 25.

EVANS, SONS & CO.

LIVERPOOL.

LONDON:
EVANS, LESCHER & WEBB,
80 Bartholomew Close.

CANADA:
EVANS AND SONS, LD.
Montreal, Toronto; and Victoria, British Columbia.

BEST AND SAFEST

DENTIFRICE

RETAIL—

No 0 Loose... 0s. 8d. each.
„ 1. In tins 1s. 0d. „
„ 2. Glass... 2s. 6d. „

Wholesale of all the leading houses throughout the world.

OVER
2,000
TESTIMONIALS



MUSK AMBERGRIS



R C TREATT

DUNSTER HOUSE

MINCING LANE LONDON E C

IMPORTER AND EXPORTER OF

ALL ESSENTIAL OILS

Wholesale and Export only

QUOTATIONS ON APPLICATION

Correspondence in French Italian Spanish

Agent for
A & F PEARS'
SANTALWOOD OIL

Agent for
IOVTCHEFF FRÈRES Kezanlik
"1F" Brand Attar Rose

GIOVANNI HAMNETTS' ESSENCE OF LEMON.

CIVET ATTAR-OF-ROSE

PRICE & CO.

(LATE PRICE & GOSNELL)

WHOLESALE AND EXPORT PERFUMERS

BY APPOINTMENT TO HER MAJESTY & THE ROYAL FAMILY,

72 AND 73 HATTON GARDEN.

Established over a Century at 28 Lombard Street (and late 246 Regent Street, W.).

Specially Pure Highly-scented Violet and Millefleur Powder, Golden Oil, Macassar Oil.

Sole Preprietors of J. Delcroix & Co.'s Specialities—Concentrated French Extracts, Pomade Divine, &c. (late 158 New Bond Street).

Indentors should specify PRICE & CO., HATTON GARDEN.

CRYSTAL PALACE JOHN BOND'S GOLD MEDAL

6d. 30/- per gross



1/- 60/- per gross

MARKING INK,

PREPARED BY THE DAUGHTER OF THE LATE JOHN BOND.

GIVEN AWAY ! !

and enclosed with every 6d. & 1s. bottle a Voucher entitling purchaser to their

RUBBER STAMP MONOGRAM OR NAME.

The Editor of The Chemist and Druggist says:
"A very neat little mounted Rubber Stamp bearing full name or monogram, really well made."

AN UNPRECEDENTED SUCCESS & LARGER SALE THAN EVER!!

Every Chemist should display this line in window and on counter.

75 SOUTHGATE ROAD, LONDON

HAIR BRUSHES.

For quotations of all descriptions see Druggists' Sundries List of undersigned.

See Advertisement, page 25.

EVANS, SONS & CO.

LIVERPOOL.

LONDON: EVANS, LESCHER & WEBB, 60 Bartholomew Close.

CANADA: EVANS AND SONS, LD. Montreal, Toronto; and Victoria, British Columbia.

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43 Highest Awards over all Competitors throughout the World.

SEABURY & JOHNSON,

Original Manufacturers of

PHARMACOPŒIAL AND SURGICAL PLASTERS,

IN RUBBER COMBINATION.

Antiseptic Dressings and Absorbents, Bandages, Oiled Silk and Muslin, and Surgical Dressings of every description.

SEE PAGES 32, 138.

Supplies may be obtained through any Wholesale Druggists and Dealers in Surgical Appliances, or from the Proprietors,

SEABURY & JOHNSON, 46 Jewin Street, London, E.C.,

NEW YORK & HAMBURG.

EXACT FACSIMILE



OF BOTTLE & LABEL.

THE MOST

POPULAR REMEDY

OF THE DAY.

SELLS AT SIGHT

Has the Largest Sale of any Smelling Bottle in the world.

Wherever introduced has become a general favourite, giving universal satisfaction to both buyer and seller, commanding an increasing sale through personal recommendation.

Bears a larger profit than a fancy bottle, without the trouble of filling.

It is the best got-up shilling article in the market.

Correspondence solicited from pushing houses publishing Price Lists.

Wholesale from all Patent Medicine Depôts.

Artistic Show Cards and Printed Matter from

MACKENZIE'S CURE DEPOT, READING.

G. B. KENT & SONS'

Catalogues.

General, Sept. 1887.
Tooth, July, 1887.
Stable, Oct., 1887.
Painters, Mar., 1889.
General, Sept., 1887.
(French List.)

Telephone Nos.: OFFICES, 3550. FACTORIES, 1166.

G.B.KENT & SONS BRUSH FACTORIES LONDON

A. D. 1777.

Registered Telegraphic Address: "TRICHO, LONDON."

Departments.

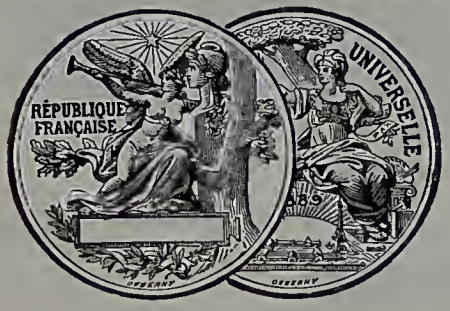
Toilet Brushes.
Tooth Brushes.
Painters' Brushes.
Household Brushes.
Stable Brushes.
Sponges.

41, Great Marlborough Street,

LONDON, W.

HAVE BEEN AWARDED

THE ONLY HIGHEST AWARD.



Gold Medal Silver Medal

G.B.KENT & SONS BRUSH FACTORIES LONDON

A. D. 1777.

Paris, Melbourne,



1889. 1889.

WHOLESALE ONLY.

ILLUSTRATED CATALOGUE AND TERMS SENT POST FREE ON RECEIPT OF TRADE CARD.

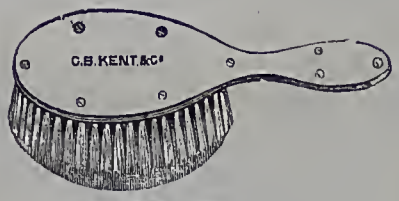
ENGLISH BRUSHES.

G. B. KENT & SONS'

SELECTED ILLUSTRATIONS OF HAIR BRUSHES,



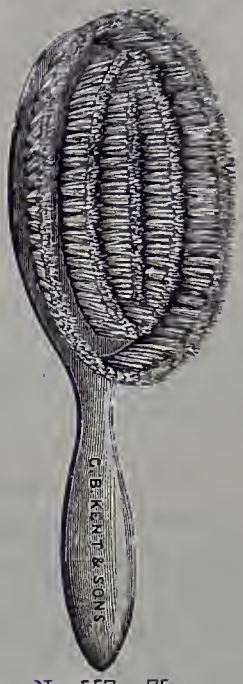
No. 562. 58s.
No. 572. 39s.



No. 506. 74s.



No. 650. 24s.



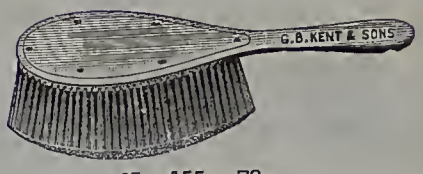
No. 557. 75s.
Ladies' Combing Brush.



No. 666. 30s.



No. 525. 48s.



No. 455. 72s.



No. 326. 53s.



No. 26. 53s.



No. 699. 36s.



No. 513. 57s.
Side view.



No. PLS 636. 86s.
Pearl Veneered, Star Centre.



No. 326. 53s.



No. 716. 13s. 6d.



No. 513. 57s.
End view.

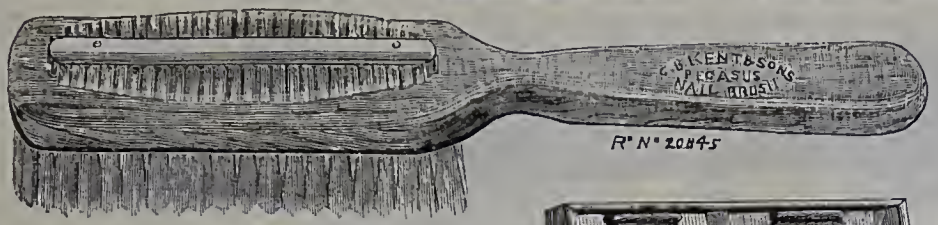


No. SP 619. 64s.
Shell and Pearl Veneered.

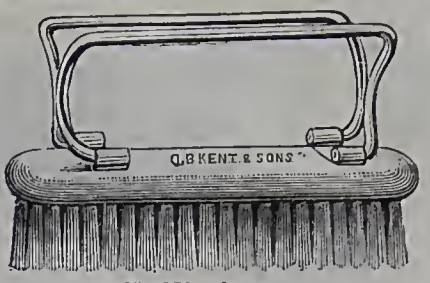
HAIR BRUSHES.

G. B. KENT & SONS.

THE "SENSIBLE" NAIL BRUSHES.



No. 118.



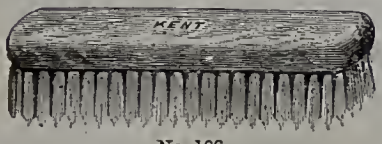
No. 154. Open.



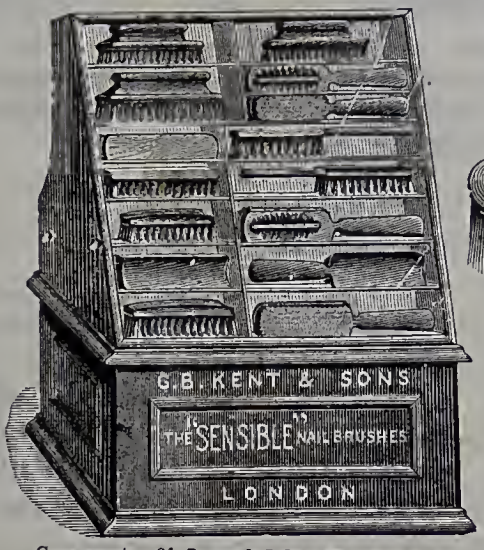
No. 130.



No. 154. Closed.



No. 106.



Case empty, £1 3s. each. 29×15×12 inches.



No. 142.



No. 112.

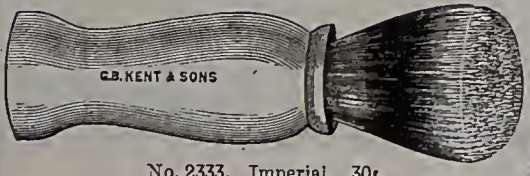
MADE IN SATINWOOD AND SELECTED YELLOW BRISTLES.



No. 148.

BADGER SHAVING BRUSHES.

G. B. KENT & SONS IMPORT BADGER SKINS AND DRESS HAIR FOR THE TRADE.



No. 2333. Imperial. 30s.



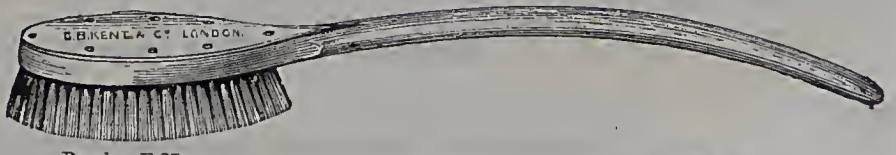


No. 2344. Club. 34s.

FLESH AND BATH BRUSHES.



"Duplex." F 30.



Beech. F 27.



Oak. F. 19.

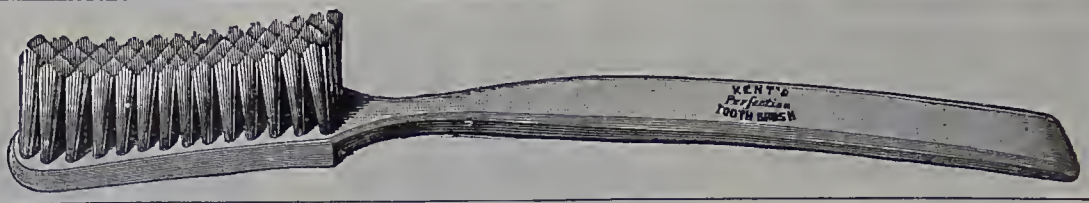


F 15.

SPONGE IMPORTERS AND DRESSERS. *PRICES ON APPLICATION.*

TOILET BRUSHES.

G. B. KENT & SONS'



STIFFNESSES OF BRISTLE.

All the Best Quality Tooth Brushes are stamped in the neck with the number of the pattern, and with a letter underneath to denote the stiffness, as follows:

XH	designates	Extra Hard.	Y	designates	Yellow.
H	„	Hard.	VS	„	Very Soft.
M	„	Medium.	GH	„	Goat Hair.
MS	„	Medium Soft.	BH	„	Best Badger Hair.
S	„	Soft.	Union	„	Union Badger.

STAMPING.

Are stamped with Name and Address gratis on orders of One Gross and upwards; or the following trade mark:

G. B. Kent & Sons — London

PRICES OF G. B. KENT & SONS'

SELECTED "BEST" QUALITY TOOTH BRUSHES.

EACH BRUSH GUARANTEED PERFECT AND MANUFACTURED ON THE PREMISES.

TITLE	DESCRIPTION	3 ROW		4 ROW			5 ROW	
		CHILDS	ADULTS	LADIES	GENTS.	PALATE	PALATE	GENTS.
THE BEST.	G. B. KENT & SONS' "Best" Quality	4/6	5/6	6/6	6/6	6/6	8s	8s
„	In Best Selected Badger Hair	7s	9s	12s	12s	—	—	15s
„	In Extra Hard or Yellow Bristles	—	—	—	7s	7s	8/6	8/6
"NOVELTY."	Extra secure	5s	6s	7s	7s	7s	8/6	8/6
QUAINT PATTERNS.	No. 85. The King Dick	—	—	—	7s	—	—	—
„	„ 99. *As illustrated*	5s	6s	7s	7s	—	—	8/6
„	„ 90. 90.1 90 2 90.3 90 4	—	6/6	—	—	—	—	—
„	In Extra Hard or Yellow, Nos. 85 and 99	5/6	6/6	7/6	7/6	—	—	9s
EXTRA PATTERNS.	No. 131. The "Perfect Combination"	—	—	7/6	7/6	—	—	9s
DOUBLE BRUSHES.	No. 134. The Tooth and Palate Brush	—	8/6	—	10s	—	—	—
„	„ 135. The Tooth and Sponge on Handle	—	—	—	9s	—	—	—
„	The Sponge only on Bone Handle	—	—	—	6/6	—	—	—
IVORY.	Ivory Tooth Brushes (*see special Ivory List*)	18s	21s	24s	30s	—	—	42s
„	Refilling Ivory Tooth Brushes	—	—	—	3s	—	—	—
IMPROVEMENT.	*Under Dr. Maury's Patent Improvement, 6d. per dozen extra on all the above.*							

ALL THE ABOVE ARE G. B KENT & SONS' "WAXED BACKED" "WIRE DRAWN" CEMENTED TOOTH BRUSHES IN THEIR SELECTED BEST QUALITY.

It is requested that all orders be permitted to be executed "assorted" as to patterns and strengths, which avoids delay and gives a good selection.

TOOTH BRUSHES.

COOK'S
ANTISEPTIC SOAP
(THOMSON'S PATENT).

A most carefully conducted set of experiments by eminent members of the Medical Profession has established the fact that this Soap is of the highest value in the treatment of ECZEMA, RINGWORM, SCABIES, FAVUS, and other Diseases of the Skin.

It has also been tested in a Physiological Laboratory as a germ destroyer, and proved to be more efficient than any other experimented with.—*See "Journal of the Society of Chemical Industry," 1888. No. 3.*

Messrs. E. COOK & CO. have received from Medical Men numerous communications testifying to the success that has attended the use of this Soap, most of which cannot be published; but Messrs. E. C. & Co. have the permission of many of the writers to show the originals to members of the Medical Profession.

CAN BE OBTAINED THROUGH

MESSRS. S. MAW, SON & THOMPSON, OF LONDON,

OR DIRECT FROM THE MAKERS.

Price, in 3-tablet Boxes, per doz., 12/, Selling Price, 1/6; in ¼-gross Boxes, 10/6 per box.

Messrs. E. COOK & CO. will, with pleasure, send sample, free of charge, to Medical Men on application.

Manufactured by **EDWARD COOK & CO., LONDON,** Makers of COOK'S Celebrated GOLD MEDAL PRIMROSE, MOTTLED, & SOFT SOAPS; also of COOK'S LIGHTNING CLEANSER, and COOK'S HIGH-CLASS TOILET SOAPS.

Speciality—SAVON DE LUXE.

GOLD MEDAL, PARIS EXHIBITION, 1889.

THE ONLY PERFECT ENEMA OBTAINABLE.

INGRAM'S IMPROVED HIGGINSON

ENEMA AND SYRINGE APPARATUS

(BY ROYAL LETTERS PATENT).

Made without Seams or Ribs by our Patent Process of dipping in a solution of India Rubber, thus adding great strength and durability.

CAUTION.—The only Enema made without Ribs.

NONE GENUINE UNLESS STAMPED WITH NO. OF PATENT 1474.



All Imitations may be detected by the Ribs on the Surface, and are always liable to split.

WARRANTED NOT TO SPLIT

A.—Metal Pin Valve.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is perfectly smooth on the surface, will not become hard or sticky, will not leak, and will not admit air while injecting or refilling. Specially prepared to resist the heat of tropical countries.

The great superiority of **INGRAM'S IMPROVED PATENT SEAMLESS ENEMA** over all others has given rise to VARIOUS IMITATIONS, and it has become imperative that the Patentees should, in order TO PREVENT DECEPTION, explain the PROCESS OF MANUFACTURE OF THEIR ENEMA and the MODE OF MANUFACTURE OF IMITATIONS thereof, as they have UNDENIABLE PROOF that INFERIOR ENEMAS are positively BEING SOLD as their "ADVERTISED" PATENT SEAMLESS ENEMA.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is made by a NEW PATENT PROCESS, viz. : By repeated dipping in a solution of India Rubber until the required substance is attained. This process adds greatly to its STRENGTH and DURABILITY, and, at the same time, dispenses WITH ALL SEAMS, which, as is well known, are weak points in an Enema. This improved mode of manufacture (the result of long study and experience) enables the Patentees to produce a PERFECT ENEMA WITHOUT SEAMS, thus overcoming the great fault to be found in ALL other Enemas, viz. : SPLITTING AND LEAKING, which has always been a source of trouble.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is fitted with IMPROVED VALVES, which prevent the admission of air with the fluid and CAN at any time BE REPAIRED, if necessary.

CAUTION.—Imitations of **INGRAM'S IMPROVED PATENT SEAMLESS ENEMA** are made of several pieces of Sheet India Rubber, which are cemented together and shaped in a mould, THUS PRODUCING RIBS ON THE SURFACE, and ENEMAS SO MANUFACTURED ARE ALWAYS LIABLE TO SPLIT AND LEAK AT THE SEAMS, AND THUS TO BECOME QUITE USELESS.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA may be distinguished from ALL IMITATIONS by its ENTIRE FREEDOM FROM RIBS OF ANY DESCRIPTION on its surface, and by having an IMPROVED METAL PIN VALVE at the suction end A ; and it is acknowledged to be the ONLY PERFECT ENEMA OBTAINABLE.

Patented in England, No. 1474, April 12, 1878; in France, No. 126,909, October 11, 1878; and in America, No. 212,939, March 4, 1879.

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Favourably noticed in "British Medical Journal," December 18, 1879 ; in the "Lancet," January 3, 1880 ; and in "British Medical Journal," September 30, 1882.

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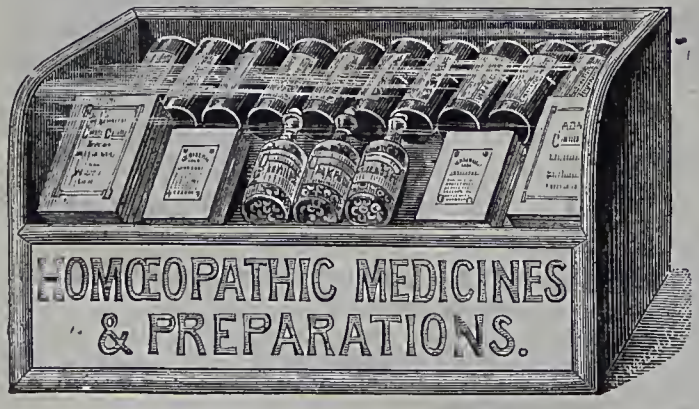
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